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SANSKRIT SYNTAX AND THE GRAMMAR OF CASE

SANSKRIT SYNTAX AND THE GRAMMAR OF CASE

[A Study in Transformational Generative Grammar]

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To

My Teacher

Dr. N. V. Smith

PREFACE

This book is intended to provide an analysis of the syntactic structures of Sanskrit in terms of the case-grammar which has been suggested as a modification of the standard theory of the transformational generative grammar. Despite the appearance of an alternative proposal by Anderson (1971), the proposals, in regard to the the case-grammar, of Fillmore (up to 1971), have been accepted as the model of this analysis. The alternative proposal implies generalisations by way of reducing the number of case-categories to the extent of making the analysis uninteresting and less revealing at the deep level.

My intention in writing this work has been to analyse the syntactic structures of Sanskrit with a view to test the validity of the theoretical assumptions of the case-grammar, examine the methodology proposed therein and expose problems, if any.

Though no claim to originality is laid in regard to the theoretical base of this work the investigation does break a new ground with reference to the analysis of Sanskrit syntax. The chapters which discuss the case-categories (specially Locative, Extent, Path, Essive, Translative), NP-asti-NP constructions and Genitive constructions are particularly notable from this point of view. They interpret the syntactic structures of Sanskrit in a way that has not been attempted so extensively and intensively before and proposes to be stimulating in its own right. The traditional Sanskrit grammar limits the number of the case-categories to six. Once the dichotomy between the suffixation and the cases as semantically defined primitives, is accepted, this limitation becomes questionable. Besides, the vocative which has been left out of this analysis has a

claim to its acceptability as a distinct case-category (Kumar, 1976).

It will be gratifying to me, if this book provokes scholars to take interest in the case-grammar for the description of the Indian languages. For all errors and imperfections that may remain, I am to blame.

To my teacher, Dr. N. V. Smith, of the Department of Linguistics, University of London, my debt is incalculable. Without his teaching and guidance, it would not have been possible for me to get through the intricacies of the transformational generative grammar. This book is dedicated to him as a token of tribute from one of his pupils.

To my teachers in India and specially those in the Department of Phonetics and General Linguistics, School of Oriental and African Studies, London University : Prof. R. H. Robins, Prof. E. J. A. Henderson, Prof. C. E. Bazell, Dr. R.K. Sprigg, Dr. J.E. Buse, Mrs. E.M. Whitley, Dr. Mrs. T. Bynon, Mrs. N. Waterson, Dr. D.C. Bennett, Miss R. Kempson, from whose teaching I have benefited immensely, I express my gratitude.

I can mention the names of Prof. D.N. Sharma, Vice-Chancellor, Patna University and Dr. R.K. Sharma, Vice-Chancellor, K.S.D Sanskrit University, who have shaped and guided my academic interests, only with a profound sense of respect.

Thanks are due to the Commonwealth Scholarships Commission in the U.K. for the award of a Commonwealth Scholarship (1969-1972) which enabled me to complete the courses in linguistics in the University of London.

I am grateful to Dr. K.K. Mandal, Vice-Chancellor, Bihar University, whose interest in linguistic studies has added a new dimension to the academic life in the university, Dr. L. P. Sinha, Pro-Vice-Chancellor and Principal K. D. P.

Sinha for the help and encouragement I have received from them.

To Professor J. Mishra and my other colleagues in the Department of Sanskrit in the University and its colleges, and in other departments, who have given an impetus to me by sharing my interest in linguistics, I am thankful.

To my elders, friends and well-wishers in India and abroad, whose affection and good wishes have sustained me during the preparation of the book, I express my deep sense of gratitude.

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I am grateful to Dr. S.S. Prasad of the Department of Sanskrit, Bihar University, who has completed the difficult job of correcting the proofs and preparing the index so meticulously.

To my parents and wife, I owe more than I can express.

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KEY TO TRANSLITERATION

Consonants	*Velar*	*Retroflex*	*Palatal*	*Dental*	*Labial*
Stops					
voiceless					
unaspirated	k	ṭ	c	t	p
aspirated	kh	ṭh	ch	th	ph
voiced					
unaspirated	g	ḍ	j	d	b
aspirated	gh	ḍh	jh	dh	bh
Nasals	N	ṇ	ñ	n	m
Fricatives	*Glottal*				
voiceless	ḥ	ṣ	ś	s	—
voiced	h				
				Labio-dental	
Frictionless continuant	—	ṛ	y	v	—
Rolled	r				
Anusvāra	ṃ				

Vowels		*Short*	*Long*		
Simple front	close	i	ī		
	half-open	e			
back	close	u	ū		
	half-close	o			
	open		ā		
central	half-open	a			
Diphthongs				ai	au

ABBREVIATIONS AND CONVENTIONS

A	Agentive
ab	ablative inflexion
acc	accusative inflexion
C	Case
Com	Comitative
Cop	Copula
D	Dative
d	dative inflexion
Es	Essive
Ext	Extent
F	Factitive
fem	feminine
G	Genitive construction
g	genitive inflexion
GO	Goal
I	Instrumental
i	instrumental inflexion
K	Case-marker
L	Locative
l	locative inflexion
M	Modality
mas	masculine
[—mas. —fem.]	neuter
N	Noun
Nom	Nominalised
nom	nominative
NP	Noun Phrase
O	Objective
P	Proposition

PP	Post-Position
Pa	Path
PR	Prompter
pres	present
R	Receptive
Re	Result
S	Sentence
SO	Source
T	Translative
V	Verb
VP	Verb Phrase
$X \rightarrow Y$	X is rewritten as Y
$X = Y$	X is equal to Y
$X \neq y$	X is not equal to Y
$X \Rightarrow Y$	X is transformed into Y
$X \not\Rightarrow Y$	X is not transformed into Y
(X)	X is an optional element
[X—]	X is a case in a case-frame
$\begin{bmatrix} X \\ +y \end{bmatrix}$	X contains the feature Y
[+Y]	Y is a positively marked feature
[—Y]	Y is a negatively specified feature
$\begin{Bmatrix} X \\ Y \end{Bmatrix}$	either X or Y is selected
$X \rightarrow Y/W—Z$	X is rewritten as Y in the environment following W and preceding Z
ϕ	Zero : absence of an element/constituent
$\triangle$	abbreviation for a string dominated by a constituent X, where the detailed constituent-structure below X is not relevant
?	indicates doubt regarding acceptability.
*	indicates unacceptable construction.

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I

INTRODUCTION

I. The study of linguistics, as it has developed since the publication of *Syntactic Structures* of N. Chomsky (in 1957), has made it imperative, to take a fresh look at Sanskrit syntax, and examine the validity of the theoretical assumptions and the methodology involved in the post-Chomskyan linguistics. There is an attempt, in this study, to discuss the nature of case-grammar as proposed by Fillmore[1] and to analyse, within its framework, the syntactic structures of Sanskrit.

I.1. This section deals with the following points : in I. 1. 1. reference is made to the Sanskrit language (the classical language), as distinguished from the Vedic language (or Vedic Sanskrit); in I. 1. 2. and I. 1. 3. the investigations and studies of the Sanskrit language and grammar by the Indian grammarians and the western scholars respectively, are referred to; the treatment of case in relation to syntax, is taken up briefly in I. 1. 4, and the scope of the present study is discussed in I. 1. 5. and I. 2. 2.

I. 1. 1. Interest in the Sanskrit language whose precise antiquity still remains unsettled,[2] was revived by the European scholars towards the end of the eighteenth century.[3]

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1. Fillmore, C. J., (1968a).
2. Burrow (1955, p. 31) assigns the period 1200-1300 B. C. to the composition of the Ṛgveda which 'is not likely to be many centuries out, either one way or the other.' Winternitz (1927, pp. 290-310), on the other hand, mentions a period in the middle of the third millennium B. C.
3. Burrow, T., (1955), p. 6.

The Sanskrit language spoken[4] and understood today, is strictly the classical Sanskrit distinct from the language of the Vedic texts, which is called the Vedic Sanskrit or Vedic language. The classical Sanskrit language and the Vedic Sanskrit language are also referred to, as 'bhāṣā'[5] and 'chandas'[6] respectively. It is maintained that the structure of the Sanskrit language (henceforth classical Sanskrit will be mentioned as such) assumed rigidity, after Pāṇini,[7] deviation from which could not be tolerated. Scholars hold the view that the Sanskrit language remains, even today, as fixed by Pāṇini's rules.[8]

I. 1. 2. The Sanskrit language has been studied in depth by the ancient Indian grammarians.[9] The initial motivation was, most probably, the preservation of the sacred and ritual texts through oral tradition which made the study of phonetics imperative for them.

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4. There are 2,460 speakers who accept Sanskrit as their mother-tongue, according to the *Gazetteer of India*, Vol. I (1965), appendix VI.
5. Pāṇini : rules II. 2. 108; VI. 1.62; IV. 1. 181; VI. 3. 20; VIII. 2. 93.
6. Pāṇini : rules I. 2. 36; 1.4.9, 20, 81; II. 3.3, 62. Cf. Staal, J. F., (1967), p. 18.
7. His grammatical treatise, Aṣṭādhyāyī, consists of about 4,000 rules (Pandeya (1938) lists 3982 rules). This work is assigned the period 700-600 B. C. by Goldstücker and Bhandarakar. Burrow (1955, p. 48) mentions 400 B. C. as the period of Pāṇini's work. Thus Pāṇini's work has variously been assigned to around 600 B. C. and around 300 B. C. (Robins, (1967), p. 137).
8. Burrow, T., (1955), p. 36.
9. For details Belvalkar, S. K., (1915), Cf. Allen, W. S., (1953), p. 3 : he quotes J. R. Firth : 'without the Indian grammarians and phoneticians...it is difficult to imagine our nineteenth century school of phonetics.'

'Niruktam', the etymological composition by Yāska,[10] embodies the 'earliest systematic discussions on questions of grammar'.[10] This system of grammatical analysis reaches perfection in the hands of Pāṇini.[11] The grammarian Kātyāyana,[12] also known as the maker of notes (Vārttikakāra), and Patañjali,[13] the writer of the 'Mahābhāṣya' (the great commentary) follow after Pāṇini and subject his grammatical work to their scrutiny. There has been much controversy as to how Kātyāyana and Patañjali have assessed Pāṇini's work.[14]

The grammarians who followed the above trio, did not contribute to the grammatical system by way

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10. Burrow, T., (1955), p. 48. Cf. Sarup, L., (1920), p. 54 : his period is mentioned between 700 B. C.—500 B. C.

11. Bloomfield, L., (1935), p. 11 : 'one of the greatest monuments of human intelligence' ...'it describes...every syntactic usage of its author's speech.'

12. His period is considered to be near about 350 B. C. Cf. Belvalkar, S. K., (1915), pp. 28-29.

13. Scholars are definite that his period is second century B. C. (Burrow, T., (1955), p. 49); cf. Robins, R. H., (1937), p. 140; cf. Belvalkar, S. K., (1915), p. 32).

14. Goldstücker, T., (1961), pp. 119-121 : 'Kātyāyana...does not leave the impression of an admirer or friend of Pāṇini, but that of an antagonist, often too, of an unfair antagonist'... Patañjali often refutes the strictures of Kātyāyana and defends Pāṇini. Cf. Kielhorn, F., (1876), p. 52 : Kātyāyana is 'a follower and judicious admirer of Pāṇini'... 'Patañjali has defended Pāṇini from some of the objections brought against him by Kātyāyana', but 'in many cases his criticism is much more thorough-going and destructive than Kātyāyana's and Pāṇini has suffered more at his hands than at those of the Vārttikakāra '(i. e. Kātyāyana).

of facts or methodology.[15] The only exceptions appear to be Bhartṛhari and Vāmana Jayāditya. The work of the former[16] is more concerned with the metaphysical aspects of grammatical analysis, and that of the latter[17], the earliest commentary after Mahābhāṣya on Pāṇini's work, furnishes examples for each of Pāṇini's rules.[18]

The later grammarians are better to be regarded as commentators. Rāmacandra,[19] the writer of the commentary 'Prakriyākaumudī', explains and rearranges Pāṇini's rules. His method is closely followed and improved upon by Bhaṭṭojidīkṣita,[20] the writer of the 'Siddhāntakaumudī.' The latter work has virtually ousted, for pedagogical purposes, Pāṇini's work from the curriculum.[21]

I. 1.3. Among the western scholars[22] who have taken up and encouraged the study of the Sanskrit language and its grammar, the first is Sir William Jones,[23] though Macdonell refers to two missionaries (1968, 1732) who were acquainted with the language.[24]

The earliest Sanskrit grammars published in English include that of W. Carey (1806, Serampore) and of C.

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15. Burrow, T., (1955), p. 50 : they 'present the material contained in Pāṇini...they contain little that is original.'
16. Bhartṛhari (700 A. D.), (ed.) Abhyankar, K.V.
17. Vāmana Jayāditya, (650 A. D.), (ed.) Shastri, S. D. D. and Pt. K. P. Shukla (1955).
18. It may be noted that Pāṇini himself did not give examples for his rules. Cf. Misra, V. N., (1966), p. 212.
19. His period is 1500 A. D., (Macdonell, 1911, p. xi).
20. His period is 1700 A. D., (Macdonell, 1911, p. xii).
21. Belvalkar, S. K., (1915), p. 46; also Saxena, B. R., (1951), p. 14.
22. For details see Pedersen, H., (1931) and Lehmann, W.P., (1967).
23. Jones, Sir William, (1786) : 'the Third Anniversary Discourse on the Hindus' in Lehmann, W. P., (1967), pp. 10-12.
24. Macdonell, A. A., (1911), p. xiii.

Wilkins (1808, London). The three most notable figures among the Europeans are : (i) F. Bopp, who was the first to attempt a comparative philological study of Sanskrit,[25] (ii) T. Benfey, who investigated the language of both Vedic and epic texts,[25] and (iii) W. D. Whitney who was the first to write a historical grammar of Sanskrit by treating the Vedic language 'more fully and explaining from it the development of classical Sanskrit.[26]

I. 1. 4. The Indian grammarians and commentators, in their analysis of cases, more or less followed Pāṇini's rules which considered cases (kārakas) to be grammatical relations of underlying structures, and did not identify these with case-inflexions.

However, the western scholars of the nineteenth century missed this point in their analysis of the Sanskrit language. The reason was that they followed the traditional approach in which case-inflexion was considered the fundamental criterion of distinction between noun and predicate (or verb) and the category of case became restricted to nominals. They described the different case-forms in relation to their uses.[27] The first to be different in his approach from the above, appears to be the English grammarian James Harris (eighteenth century).[28]

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25. Macdonell, A. A., (1911), p. xiv.
Robins, R. H., (1967), p. 148.

26. Pedersen, H., (1931), pp. 19-22; Macdonell, A. A., (1911) p. xiv; Lehmann, W. P., (1967), pp. 38-45.

27. Robins, R. H., (1967), pp. 26-35, 50-52, 59.

28. Robins, R. H., (1967), p. 154; Harris advocates 'identification of those universal categories of grammar and relations', because 'the same function ... was served by case-inflexions in Latin and by prepositions in English'.

Thus, Wilson in his Sanskrit grammar, refers to eight cases; nominative, accusative, instrumental, dative, ablative, genitive, locative and vocative.[29] Monier-Williams thinks that 'Sanskrit syntax, unlike that of Greek and Latin, offers fewer difficulties.'[30] Perry devotes eight pages to nominal declension only, and mentions nothing about cases.[31] Edgren refers to cases and also to the 'function of cases' in a footnote.[32] According to Macdonell 'the absence in Sanskrit of the indirect construction ...is in itself a tolerably clear proof that the structure of complex sentences in Sanskrit must be far less involved than in Latin or Greek.' He refers to eight cases and adds that 'the syntactic arrangement of the Sanskrit sentence is primitive and undeveloped, as compared with Greek and Latin.'[33] Thus, all these scholars appear to identify case-inflexion with cases, and, at best, they refer to uses or functions of the cases for which the most comprehensive analysis with extensive citations from the texts, appears to be that of Speijer.[34]

The Indian grammarians of the nineteenth and twentieth centuries follow, more or less, either the principles of the western traditional grammatical analysis or the system of the traditional Indian commentators.[35]

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29. Wilson, H. H., (1847), pp. 377-402.
30. Monier-Williams , M., (1877), pp. 354-361.
31. Perry, E. D., (1885), pp. 83-91.
32. Edgren, H.,(1885), p. 37 (f. n. 90) : he refers to eight cases, and in his treatment lays emphasis on morphology.
33. Macdonell, A. A., (1911), pp. 178-209.
34. Speijer, J. S., (1886), pp. 24-113.
35. Taraporewala, I. J. S., (1967), this contains his Wilson Philological lectures delivered at the Bombay University in 1937.
Apte, V. S., (1921).
Kale, M. R., (1918).

However, the period from the thirties of the present century, has witnessed a revival of interest in the work of Pāṇini, in the wake of advances both in theory and methodology of linguistic studies, and, consequently, scholars have better appreciation of the case-system in Sanskrit (an indication of which is given by Faddegon[36]) as explicated through the rules of Pāṇini.

Recently, linguists like Staal and Kiparsky, in their works, have re-analysed some aspects of Sanskrit syntax on the basis of the rules of Pāṇini.

Staal has discussed word-order in Sanskrit which he accepts, on the basis of the works of ancient Indian grammarians, to be free[37], and advocates a word-order-free categorical component as a linguistic universal. The word-order in Sanskrit which Staal cites as a support for having base-rules free from sequential ordering, has also been studied by scholars like Delbrück and Gonda who have analysed selected Sanskrit texts. Their studies, however, have ended as statistical assessments which reveal little significant about the word-order in Sanskrit.[38]

36. Faddegon, B., (1936), p. 18 : referring to Pāṇini's 'kāraka'-theory, he says : 'evidently Pāṇini tries, in this analysis, to separate the ideational aspect from the linguistic expression, an attempt which the occidental linguists of the latter half of the nineteenth century have condemned (he refers to the criticism of Whitney $_{bsk}$), misled as they were by the hope of being able to understand language through the exculsive study of its phonal and morphological aspect, i.e., its articulative utterance and the association-system underlying declension and conjugation, as if, the application and imitation of physics and a mechanistic psychology were the last word of moral science'.

37. Staal, J. F., (1967), pp. 16-50.

38. As discussed in Staal (1967), p. 59.

Indian scholars, like Lahiri, also have undertaken such analyses; but their conclusions remain vague and, at best, maintain that the logical natural sequence of ideas is expressed in word-order.[39] The possibilities of sequential ordering that such studies suggest, amount to 'saying xyz and xyz occur, but on the other hand, yxz, yzx and zyx also occur'.[40]

Due to this characteristic of free word-order in Sanskrit, F(illmore's) C(ase) G(rammar) commends itself as a framework for the analysis of Sanskrit syntactic structures. Because, as pointed out later (I.2.1.3), FCG does not assume a sequential ordering in the base-component. As against FCG, Staal's proposal for a set-system in the categorial component for making it universal[41] (as opposed to Chomsky's concatenation-system), does not appear to be acceptable for Sanskrit. As Staal retains the constituency-analysis (i.e. $S \rightarrow NP \frown VP$), it is not clear how this VP is to be specified in Sanskrit unless some sort of word-order is implied. Since, for the analysis of a language like Sanskrit, the choice remains between EST (of Chomsky) and FCG, the one proposed by Staal does not appear to be acceptable.[42] Secondly, Staal appears to identify

39. Lahiri, P. C., (1933), p. 372 : '...it is generally said that an inflexional language like Sanskrit is almost absolutely free in its word-order, we have found that usually the word-order follows the thoughts as they occur to the mind of the speaker or writer. Their order is occasionally disturbed for special reasons mainly to lay emphasis on a particular word.'

40. Dover, K. J., (1960), p. 1.

41. Staal, J. F., (1967), pp. 60-90.

42. Cf. Seuren, P. A. M., (1969), pp. 173-174 : he does not raise this point, but questions Staal's position on some other ground: 'it has not appeared so far...that an unordered nucleus expansion of the type proposed by Staal is useful or necessary for English, as opposed to languages with free word-order.'

case with inflexion, as he postulates a rule such as NP → {N, Num, Cas, (S)}[43], despite his acceptance that case (kāraka) - relation in Sanskrit is a deep grammatical relation. Thirdly, his treatment of Sanskrit syntax is confined to word-order only and does not go beyond the analysis of ten sentences. In view of these, Staal's framework and treatment of Sanskrit syntax appear to be highly inadequate.

Kiparsky, along with Staal, has investigated the syntactic semantic relations of Sanskrit as accounted for by Pāṇini's rules.[44] But this treatment also appears to be inadequate for more than one reason. In the first instance, their treatment is not concerned with Sanskrit syntax in general, rather it shows to what extent Pāṇini's rules capture the generalisations of Sanskrit syntactic structures. Secondly, though it mentions genitive, it does not discuss genitive constructions. Thirdly, certain constructions which are discussed in chapters II, IV of this study, are not discussed by them. Thus, their analysis of Sanskrit syntax, covers a highly restricted ground.

I. 1. 5. The present study may, thus, be considered as the first attempt at an analysis of Sanskrit syntax within a transformational generative theoretical model. The study is carried on within the framework of FCG in view of FCG's characteristics as specified in I.2.1.3.2. and I.2.1.3.3.

No attempt is made, in this study, to present a comparative study of Pāṇini's 'kāraka'-theory and FCG.[45] In fact, the cases of FCG and the kārakas need not be identified with each other, and, as such, this problem is considered beyond the scope of this study.

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43. Staal, J. F., (1967), p. 65.
44. Kiparsky, P. and J. F. Staal, (1969).
45. Anantharanarayana, H. S., (1970)

I. 2. This section contains two parts : I. 2. 1. deals with the theoretical assumptions of Fillmore's case-grammar, and section I. 2. 2. refers to the scope of the present study.

I. 2. 1. In this section, it is proposed to present the theoretical assumptions of case-grammar proposed by Fillmore.

I. 2. 1. 1. The framework of FCG can be constructed on the basis of his undermentioned works :

1. 'A Proposal Concerning English Propositions' (1966a)
2. 'Towards a Modern Theory of Case' (1966b)
3. 'The Case for Case' (1968a)
4. 'Lexical Entries for Verbs' (1968b)
5. 'Types of Lexical Information' (1969)
6. 'The Grammar of Hitting and Breaking' (1970a)
7. 'Subjects, Speakers and Roles' (1970b)
8. 'Some Problems for Case-Grammar' (1971)

Of these, the third expounds FCG in detail and still remains the standard treatment, and the eighth sketches the present state of the theory, though regrettably in a very fragmentary manner, in the light of the inadequacies that have suggested themselves during the intervening period. However, it is assumed that the third and the eighth, between them, cover the exposition of FCG. The discussion in the succeeding chapters will be based on this exposition.

I. 2. 1. 2. The notion of case has been treated variously by grammarians and linguists, and equated with either

(i) 'semantic functions of inflexional affixes on nouns or the formal dependency relations which hold between specific nominal affixes and lexico-grammatical properties of neighbouring elements'; or (ii) 'a statement of the morphophonemic reflexes of a set of underlying syntactic relations which themselves are conceived independently of the notion of 'case'.'[46] In the first category, comes the description of case-systems of languages like Latin, Greek, and Sanskrit; and which have been accepted as the basis for the treatment of case-systems of other languages. In the second category, comes the treatment of case in some varieties of generative linguistics which identify 'case' with the inflexional realisation of particular syntactic relationships in the surface structure.[47] Some scholars have insisted on its being related to inflexion.[48]

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46. Fillmore, C.J., (1968a), p. 2

47. Chomsky, N., (1965) : ..,'specified feature [case] is introduced by a rule that does not belong to the base sub-component of the syntax at all but rather to its transformational part' (p. 172),... the features involved in the case-dimension are certainly added to a formative by rather late transformations (since case often depends on aspects of surface rather than deep structure' (p. 177); ...'case is usually determined by the position of the noun in surface-structure rather than in deep-structure' (p. 221 f.n. 35). Cf. Lyons, J., (1966), p. 218. 'Case (in the language in which this category is to be found) is not present in deep structure at all, but is merely the inflexional realisation of particular syntactic relationships.'

48. Cassidy, F. G., (1937), p. 245 : 'Case will be properly used and will continue to have some meaning only if the association with inflexion be fully recognised.' Cf. Lehmann, W. P. (1958), p. 187 : 'a particular case is nonexistent unless it is represented by forms which contrast in a system with others.'

I. 2. 1. 3. Fillmore, on the other hand, agrees with Hjelmslev in not accepting case as an 'expression in the form of affixes on substantives'[49] and uses case to identify the underlying 'syntactic-semantic relationship' as a deep structure phenomenon in a natural language.

For Chomsky, Fillmore's case-grammar as 'a semantically justified universal syntactic theory'[50] is not considered basically different from the earlier version of syntax as put forth in *Aspects* 'at the conceptual or theoretical level, but rather at the level of application to the particular grammar of English'.[51]

Within transformational generative grammar, basically three assumptions about FCG are possible : (i) it presents a theoretically different grammatical description which meets both descriptive and explanatory adequacy, (ii) as an evaluation procedure[7] it is to be preferred to other types of grammar for a natural language, (iii) it is a grammar which is specific to English. Chomsky has not argued that case-grammar is not applicable to other languages, and none of the linguists has given any argument to prove that case-grammar is language-specific, and the plea that it is a 'choice of grammar'[52] for English, is untenable. Of the remaining two assumptions, even if the second assumption is demonstrated to be correct, FCG makes a significant contribution. However, it will be examined below whether it meets the first assumption of descriptive adequacy or not.

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49. Fillmore, C. J., (1968a), p. 21; also Blake, F. R., (1930), p. 35; 'the term case-form will be employed for case in its usual sense, while the term case will be reserved for the relationship, itself without regard to its means of expression.'
50. Fillmore, C. J., (1968 a), p. 21.
51. Chomsky, N., (1970). p, 38.
52. Chomsky, N., (1957), pp. 50—53.

I. 2. 1. 3. 1. A grammar is descriptively adequate to the 'extent that it correctly describes the intrinsic competence of the idealised native speaker.'[53] Thus a descriptively adequate grammar is not concerned with a limited corpus, rather, it accounts for all the grammatical sentence-types as distinguished from utterance-types[54] which a speaker-hearer produces and understands on the basis of an 'internalised' system of rules. A grammar G_1 is more valuable than a grammar G_2 and reaches a higher degree of descriptive adequacy if it fulfils four conditions: [55] (i) the rules (i. e. description) are so explicit and exact that there is no confusion with regard to what is generated and what is not generated, (ii) it gives only and all the combinations or strings of formatives which are sentences of a language, (iii) it has more generalisations and expresses them with a smaller set of rules. In other words, it is as simple as possible.[56] A description may be called simple if it makes relevant generalisations and expresses regularities in the language concerned. If two descriptions reach the same level of generalisations, the description with the smaller set of rules and/or symbols is simpler; (iv) it is able to associate with a regular and straightforward semantic interpretation. Of these, the first two conditions are better left for verification when the description of the particular language is taken up. The remaining two conditions are fulfilled in FCG, as evident from the following discussion.

I. 2. 1. 3. 2. FCG assumes (i) the centrality of syntax wherein 'the forms of words (formatives) are specified with

53. Chomsky, N., (1965), p. 24.
54. Seuren, P. A. M., (1969), p. 2.
55. Seuren, P. A. M., (1969), p. 12
56. This condition of a grammar being 'simple', but non-trivial at the same time, is difficult to be met.

respect to syntactic concepts'[57] and (ii) specifies the significance of 'covert categories' which exhibit the grammatical properties on the basis of 'selectional restrictions and transformational possibilities'[57] even if the grammatical properties are not morphemically realised. FCG[58] accepts the distinction between deep structure and surface structure, and treats the base-component (excluding the lexicon) as language-universal, and not as language-specific. FCG assumes a base-component as a 'semantically justified syntactic deep structure, not as a syntactic deep structure of Chomsky.[59] It advocates that the grammatical notion case[60] deserves a place in the base-component of the grammar of every language.[61]

I. 2. 1. 3. 3. FCG assumes a base-component without any sequential ordering of items. This is opposed to the concatenation-system of the standard theory which implies a sequential ordering in the base-structure.[62] Linguists have divergent views in this respect. Halliday would favour a sequence-free base-component and Lyons would argue for leaving this question for empirical investigation.[63] Agreeing with Lyons, even if the question

57. Filmore, C. J., (1968a), p. 3
58. Fillmore, C. J., (1968a), p. 21.
59. Fillmore, C. J., (1968a), p. 38. Cf. id. (1971), p. 245 : FCG does not propose 'to eliminate deep structure altogether, but ... to find a level of syntactic structure which was deeper than that offered by the then standard theory.'
60. Fillmore, C. J.,(1971), p. 245 : ... 'deep structure cases.... their existence could be discovered and justified by syntactic criteria...' cf. (1968a), p. 5 : 'semantically relevant syntactic relationships.
61. Fillmore, C. J., (1968), p. 9.
62. Chomsky, N., (1965), pp. 124—127.
63. Halliday, M. A. K., (1966), p. 227.
Lyons, J., (1966), p. 227.

is left open in respect of natural languages in general, and we do not concede sequential ordering to surface-structure apart from 'stylistic inversion' (which Chomsky concedes to be a surface phenomenon), a sequence-free deep structure appears inevitable for languages like Sanskrit, Greek, Latin. In the case of languages like German and Russian, linguists have tried to show that some order in the deep structure needs to be accepted.[64]

It appears that in order to meet the criterion of descriptive adequacy, a grammatical description of a language like Sanskrit, should have a deep structure free from word order phenomenon.

I. 2. 1. 3. 4. According to FCG, the base-component specifies that a sentence consists of two constituents M(odality) and P(roposition).[65]. The M(odality) includes 'negation tense, mood and aspect.'[66] The P(roposition) is a 'tenseless set of relationships' involving a V(erb) and one or more N(oun)P(hrase).[67] The rela-

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64. Chomsky, N., (1965), p. 126.
Ross, J. R., (1970), pp. 257-258.

65. Fillmore, C. J., (1968a), p. 23.

66. Fillmore, C. J., (1968a), p. 23. Cf. Loyns, J. (1966), pp. 218, 223 : he regards negation, tense, mood as associated directly with the sentence as a whole, and the perfect and progressive aspects as features on the V. Cf. Robinson, J. J., (1969), p. 63 : she brings in interrogation under M(odality), but removes negation and aspect from it.

67. Fillmore, C. J., (1968a), p. 23: he later on (1971, pp. 246-47) substitutes V with Predicator (verb, and adjective or noun). This revision in the constituents of P is unfortunate, as it is proposed without any discussion for or against. In this study P as expanded above (1968a) is accepted.

tionships that the NPs contract with the V, are realised as different C(ases). Rules (i) and (ii)[68] formalise this.

(i) S → M P[69]

(ii) P → V C_1...Cn

A C(ase) dominates an NP, K(asus) (case-inflexion) and P(ost) P(osition), which can be indicated by a rule like (iii)[70].

(iii) C→NP + K (+PP)

Fillmore has postulated (1968a, 1969, 1971), the following C(ase)s with the semantically based definitions given :

1. A(gentive) : 'the case of the typically animate perceived instigator of the action identified by the verb' (1968a), p. 24; 'the instigator of the event' (1969), p. 116; 'the principal cause' (1961), p. 253.
2. D(ative) : 'the case of the animate being affected by the state or action identified by the verb' (1968a), p. 24.
3. E(xperiencer) : 'the entity which receives or accepts or experiences or undergoes the effects of an action' (1969), p. 116; 'when there is a genuine psycholo-

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68. Fillmore, C. J., (1968a), p. 24.
69. FCG proposes a notation like X→Y :' the arrow notation is used throughout, but this should not be interpreted as meaning that the proposal for a case-grammar requires an assumption of a left-to-right orientation of the constituent symbols of the rewriting rules' (Fillmore, C. J., (1968a), p. 24 (f. n. 30).
70. Fillmore, C. J., (1968a), p. 33: he proposes a rule like C→K+NP, perhaps, in view of the English language. The PP occurring in certain constructions of Sanskrit, imposes a specific realisation of K.

gical event or mental state verb, we have the experiencer"...(1971) p. 251.

4. I(nstrumental) : 'the case of inanimate force or object causally involved in the action or state identified by the verb' (1968a), p. 24; 'the case of the immediate cause of an event, or, in the case of a psychological predicator, the stimulus, the thing reacted to' (1971), p. 251; 'the stimulus or immediate physical cause of an event' (1969), p. 116.

5. Counter-agent : 'the force or resistance against which the action is carried out' (1969), p. 116.

6. F(actitive) : 'the case of object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb' (1968a), p. 25.

R(esult) : 'the entity that comes into existence as a result of the action' (1969), p.116.

7. O(bjective) : 'the semantically most neutral case, the case of anything representable by a noun whose role in the action or state is identified by the semantic interpretation of the verb itself; conceivably the concept should be limited to things which are affected by the action or state identified by the verb. The term is not to be confused with the notion of direct object, nor with the name of the surface case synonymous with accusative' (1968a), p. 25;

'the entity that moves or changes or whose position or existence is in consideration' (1969), p. 116; 'the Object case is that of the entity which moves or which undergoes changes, ... a waste-basket, sentences embedded to Objects can serve to identify ... the content of a psychological event as with the verbs of judging or imagining' (1971), p. 251.

8. L(ocative) : 'the case which identifies the location or spatial orientation of the state or action identified by the verb' (1968a), p. 25.

9. SO(urce) : 'the place from which something moves' (1969), p. 116; 'starting point' (1971), p. 259.

10. GO(al) : 'the place to which something moves' (1969), pp. 116; 'the destination (1971), p. 259.

Fillmore has suggested additional cases like (i) Com(itative)(1968a, pp. 81-83), (ii) B(enefactive)(1968a, p.32), (iii) T(ime) (1968a, p. 32), (iv) Es (sive) (1968a, p. 84), (v) T(ranslative) (1968a, p. 84), (vi) Pa(th) (1971, pp. 259-260), and possibly (vii) Ext (1971, p. 260 ff).

No attempt is made, here, to assess the justifiability or validity of one or all of the cases mentioned above. This question is taken up in the sections concerned with specific case-categories.

I. 2. 1. 3. 5. Of the cases, A, D, O, F, I, L, SO, GO, Ext, Pa, Es, T are postulated in the succeeding chapters. The case-category R(eceptive) is introduced. The status of

Com (itative) is not examined, as it is linked up with coordination. Other case-categories are discussed, but not retained.[71]

Now, for the present study, the Phrase-Structure rules (i, ii above) can be restated as follow

(i) S → M P

(ii) P → V C_1 ... C_n

where : C_i=one of A, D, R, O, F, I, L, SO, GO, Ext, Pa, Es, T.

FCG maintains that the case-frame(s) of a verb indicate(s) the relationship (s) in the form of cases that contract between the NP(s) and the V. Thus, a verb like 'paṭhati' (reads) has a case-frame like

paṭhati : + [A, (I), O (L) —]

The dash indicates the place where the verb occurs, the symbols to the right of it, show the cases that can co-occur with the verb. The parentheses indicate optionality. The symbol '+' in front of the square-brackets, indicates that the frame-feature is positively specified with regard to the lexical item 'paṭhati'.

According to FCG, the relationship obtaining between a V and the associated NP's in deep structure remains the same, irrespective of the final position of these NP's in surface structure. Thus, the case-frame of the verb 'open', to take an example from English, is as follows:

Open : + [—— O, (A), (I)]

(i) the door opened
O

71. The case-category Counter-agent (I. 1.3.4.) is excluded from this discussion. Because, Fillmore does not discuss it (1969), and he appears to have rejected it later on.

(ii) he opened the door
A O

(iii) the key opened the door
I O

(iv) he opened the door with the key
A O I

[Similar examples can be cited from other languages like Sanskrit :

bālakaḥ—pustakam-paṭhati :
A

bālakena –pustakam –paṭhyate]
A O

In addition to the categorial component,[72] the base-component of FCG comprises a lexicon. As regards the selection of lexical items, FCG proposes that the selection of the verb should precede the selection of other lexical items.[73] Secondly, FCG maintains that subject-object relations are surface-phenomena.[73] Consequently, there does not appear to be any need to distinguish between strict sub-categorisation rules and selectional restrictions.[74] As a result of these, the lexicon assumes a less complex form.

Besides, FCG proposes that one case-category occurs only once in a simple sentence, and occurrences of the same case-category can be conjoined in relation to a single verb.[75] In so far as the sentence-embedding is concerned,

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72. For Phrase-Structure rules see V. 3.
73. For the details see V. I.
74. Cf. Chomsky, N., (1965), pp. 95, 113.
75. Fillmore, C. J., (1968a), p. 21 : '...although there can be compound instances of a single case (through noun phrase conjunction), each case-relationship occurs only once in a simple sentence.'

FCG makes a change in its earlier position[76] and proposes that embedded S is dominated by some case-category.[77]

I. 2. 1. 4. In sum, the FCG which, according to its proponent, 'should be incorporated into the theory of transformational grammar',[78] lays down the following principles for description.

(i) Case-systems are universal.[79]

(ii) Cases are semantically justified syntactic primitives.[80]

(iii) 'Case-form'[81] or 'surface-cases'[82] are language-specific and may be realised by inflexion, pre-/post-positions, and other 'syntactic function indicators'[82] like word-order.

(iv) In a simple sentence, one case-relationship occurs only once.[83]

(v) Relations of subject and object are surface phenomena.[84]

(vi) Only noun-phrases representing the same case can be conjoined with a single verb.

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76. Fillmore, C. J., (1968a), p. 32 : complex sentences involve recursion through the category S(entence) under the case-category Objective.'

77. Fillmore, C. J., (1971), p. 247.

78. Fillmore, C. J., (1971), p. 245.

79. Fillmore, C. J., (1971), p. 247 : 'the cases identify the roles... defined once and for all for human languages...'

80. Fillmore, C. J., (1968a) p. 5; (1971), p. 245.

81. Fillmore, C. J., (1968a), p. 21.

82. Fillmore, C. J., (1971), p. 47.

83. Fillmore, C. J., (1971), p. 248 : 'one-instance-per-clause-principle'.

84. Fillmore, C. J., (1968a), p. 32 (1971), p, 247.

(vii) Sentences 'embedded in underlying representation are embedded as occupants of some case-role.'[85]

I. 2. 1. 5. FCG as specified, in brief, above, may need refinements and a detailed formulation of its rules both universal and language-specific ones. Its application to the analysis of natural languages may bring out imperfections which need to be rectified. In fact, Fillmore is aware of these possibilities.[86] Despite these reservations, FCG stands as a sufficiently detailed working hypothesis for empirical research to attempt a validation of its major claims. The present study is an attempt to test the adequacy of FCG by applying it to the case of Sanskrit.

I. 2. 2. The following limitations have been imposed on this study.

(i) The first relates to case-specification. Sentences with metaphorical and suggestive interpretations are excluded from this study.

(ii) Secondly, in addition to the above types of sentences, those containing negation have been left out.

(iii) Thirdly, the intonational pattern of the sentences has been ignored. The study of intonational pattern of Sanskrit sentences requires separate treatment. Moreover, the intonation of the speakers of Sanskrit may largely be influenced by the intonation-pattern of the modern Indian languages which are, in most cases, their first languages. Besides, the study of accent in Sanskrit has been confined to the Vedic texts and is purely academic, and, thus it has no relevance for the classical Sanskrit.

(iv) Lastly, only simple sentences, as a general rule, are analysed in this study. A departure from this is made in

85. Fillmore, C. J., (1971), p. 247.

86. Fillmore, C. J., (1968a), p. 88; (1971), p. 246.

the case of genitive constructions and NP-asti-NP constructions wherein the process of nominalisation is involved. However, this departure is undertaken, more with a view to illustrating the points under consideration in simple sentences, than to explicating the characteristics of complex sentences.

I. 2. 2. 1. The data that are discussed in this study, are not based on some particular texts, but on the knowledge of the classical texts of grammar and literature which I have acquired during the past years as a student of Sanskrit. It is an attempt to analyse the principles or rules which underlie Sanskrit syntactic structures and which are internalised by a speaker-hearer of the language. Thus, this study is a 'formal account of competence' and makes 'no direct commitment vis-a-vis performance.'[87] It is hoped that this study, in the sense of 'formal account of competence' would, given any particular sentence, spell out precisely the processes involved in its generation.

Though, it cannot be claimed that this study exhausts the analysis of all possible simple syntactic structures in Sanskrit, it may reasonably be maintained that it does not exclude any structure which may materially affect the theoretical assumptions.

Lastly, this study is concerned with the Sanskrit syntactic structures, and not with the phonology[88] of Sanskrit. Besides, Sanskrit as spoken today in India, is influenced by the phonetic/phonological pattern of the speakers of different modern Indian languages. So, there does not appear any need for giving phonetic details. A systematic transcription may suffice for this study.

87. King, R. D., (1969), p. 12.

88. Zwicky, A., (1965) : for a treatment of the phonology within the frame-work of generative grammar.

II

CASE-CATEGORIES

II. In this chapter the case-categories A(gentive), D (ative), R(eceptive), O(bjective), F(actitive), I(nstrumental), L(ocative), SO(urce), GO(al), Ext (ent), Pa(th) are discussed. Of these, R[1] is not mentioned by Fillmore.

It is proposed to discuss the case-categories A, D, R in section II.1; O, F and Cognate Objects[2] in II. 2; I in II. 3; L, SO, GO, Ext, Pa in II. 4.

II. 1. In this section the case-categories A, D, R are discussed and distinguished from each other. Recently, the case-category D has been replaced with Experiencer,[3] but this substitution has not been followed by any discussion. So, the case-category D, rather than Experiencer, is retained for the reasons given in II. 1. 3. below.

II. 1. 1. If the arguments[4] of a verb are case-categories A and D[5], these must be realised by NP's having the feature [+animate] as in sentences 1, 2. If the NP acting as the argument of a verb (even the same verb) is not animate, the case-category cannot be A/D, as in sentence 3.

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1. Wilson, W. A. A., (1971), p. 75 : it appears that the case-category R is mentioned, for the first time, in this thesis.
2. Fillmore, C. J., (1968a), pp. 85-86.
3. Fillmore, C. J., (1969), p. 116.
4. Fillmore, C. J., (1968b), p. 373 : 'the objects concerning which a predicate asserts something are the arguments of that predicate.' The number of arguments is the number of nouns a verb requires in a syntactically complete expression. Cf. Fillmore, C. J., (1969), pp. 114-115.
5. Case-categories A, D, R are examined with reference to their definitions given by Fillmore in II. 1.2. and II. 1.3.

1.	sevakaḥ A	—	patati[6]
	servant	—	falls
2.	sevakaḥ D	—	mṛyate
	servant	—	dies
3.	pustakam O	—	patati
	book	—	falls

The case-categories A, D are distinguished from R as follows. Whereas the case-categories A and D may occur as the sole arguments of a verb, R (II.1.2) presupposes the presence of A/D in addition (to itself). Thus, sentences 4 and 5 are acceptable, but not 4′ and 5′.

4. guruḥ — daṇḍena — chātram — tāḍayati
   A I R
   teacher — with stick — student — beats
   (the teacher beats the student with a stick)

5.	mātā D	—	putram R	—	cintayati
	mother	—	son	—	worries
	(the mother worries about her son)				
4′.*	daṇḍaḥ I	—	chātram R	—	tāḍayati
	stick	—	student	—	beats
5′*	dharmaḥ O	—	putram R	—	cintayati
	religion	—	son	—	worries

6. The question of intentional or non-intentional involvement of one or more of the participants in the events described by the verbs, is taken up in II. 1.4 and II. 3.5.3.

When the case-category A or D occurs in the case-frame of a verb in a simple sentence,[7] it is subject, normally[8], to a subjectivalisation-rule, and enters into concordial agreement with the V. The subjectivalisation-rule which selects A/D for agreement with the V, applies optionally. If case-category R/O/F/GO also occurs in a case-frame, in addition to A/D, and A/D is not selected for subjectivalisation, R/O/F/GO[9] is selected for subjectivalisation. This fact is registered (i) in the from of adding the stem-element 'ya' to the item under the V; (ii) in taking on the features (of [+number] and [+person]) of R/O/F/GO by the M; (iii) and by a difference in the inflection selected by M(i.e. an affix of the 'te'-class, rather than that of 'ti'-class)[10]. This subjectivalisation of R/O/F/GO, in case A/D is not subjectivalised, will be referred to, henceforth, as the process of passivisation. If the case-category R/O/F/GO does not occur in a case-frame, and the subjectivalisation-rule does not select A/D for subjectivalisation, no other case-category is selected for agreement with the V, as a general rule,[11] and this fact is registered in the operation of the process of passivisation with the difference that the M, invariably, takes on the features [+third] and [+singular]. This latter process

7. Sentences with the case-category PR(ompter) in causative constructions are considered complex, and are not treated in this analysis.
8. Sentences with O/I/L selected by the subjectivalisation-rule for agreement with the V, do not allow A/D in their case-frames (II.2.I.2, II.4.3.3).
9. The subjectivalisation of GO is highly restricted (II.4.5).
10. In traditional Sanskrit grammar, the 'te'-class and the 'ti'-class affixes are referred to as 'ātmanepada' and 'parasmaipada' affixes respectively.
11. Exceptions are mentioned in the sections dealing with the case-categories concerned.

will be referred to as passivisation without subjectivalisation. Thus, a sentence like 6 corresponds to sentence 7, if A is not selected for concordial agreement with the V, and wherein the process of passivisation operates; and sentence 1 corresponds to sentence 8, in case the subjectivalisation-rule does not select A, and, consequently, the process of passivisation without subjectivalisation operates.

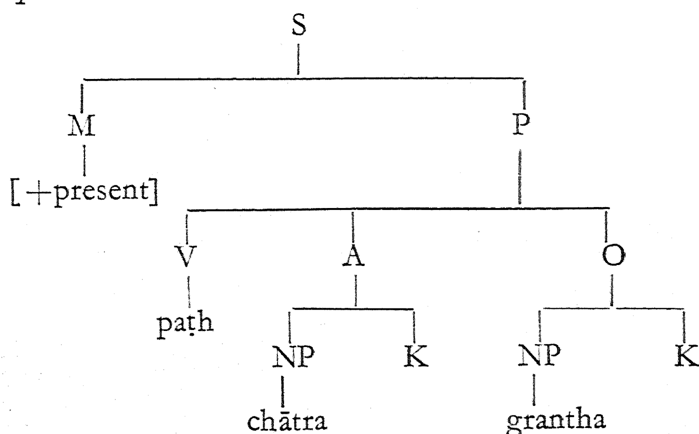
6. chātraḥ — grantham — paṭhati
A nom O acc
student book reads
(the student reads a book)

7. chātreṇa — granthaḥ — paṭhyate
A i O nom
by student book is read
(the book is read by the student)

8. sevakena — patyate
A i
by servant is fallen
((it) is fallen by the servant)

Sentences 6, 7 have the underlying structure (in relation to which P. S. rules[12] have already operated) as in figure I.

Figure I

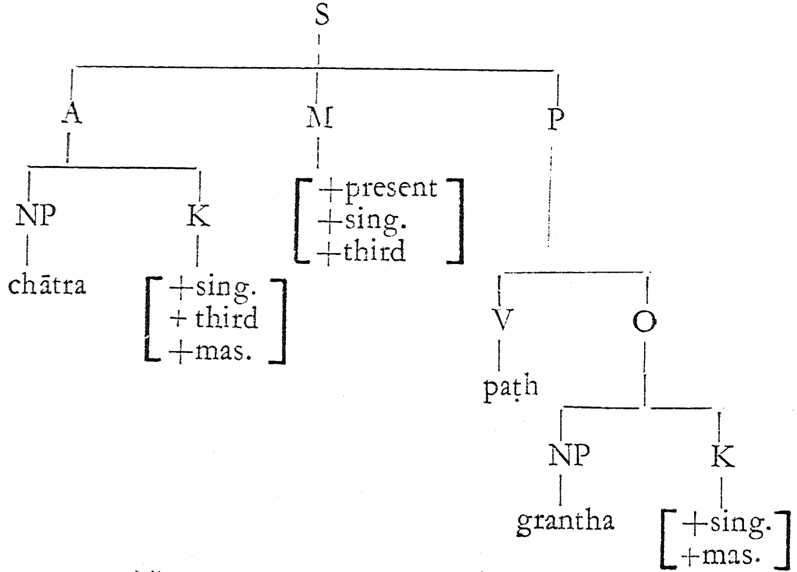


12. For P. S. rules see V. 1. 3. 1.

The subjectivalisation-rule[13] applies and selects A for agreement with the V.

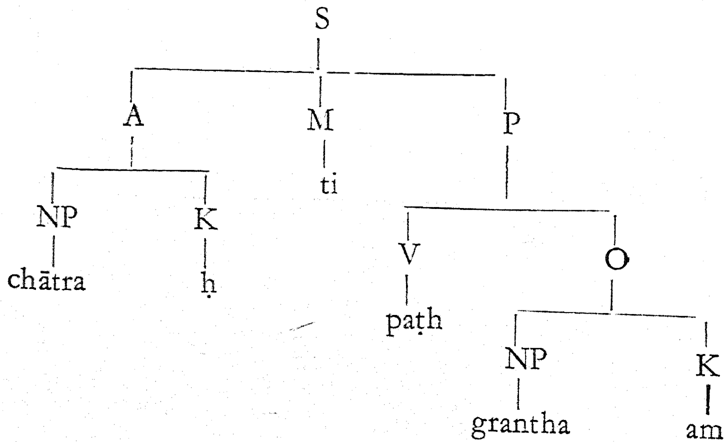
The result is as represented in Figure II.

Figure II



The affix-substitution rule applies and replaces features with affixes, with the result as in Figure III.

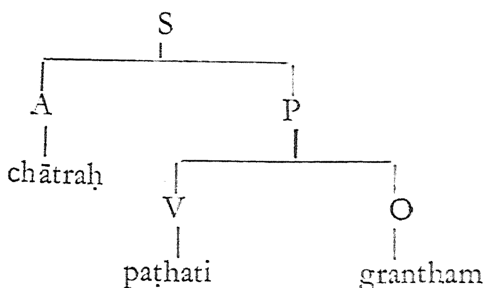
Figure III



13. For T. rules see V. 1. 3. 2.

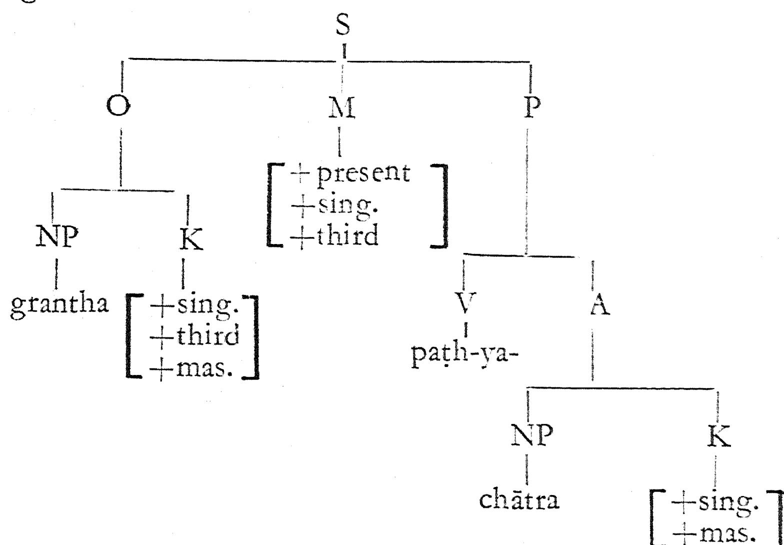
The final form (aside from scrambling),[14] is as given in Figure IV.

Figure IV



Alternatively, at the stage of Figure I, the subjectivalisation rule does not select A, and, consequently, O is selected and the process of passivisation operates. The result is as in Figure V (from Figure I).

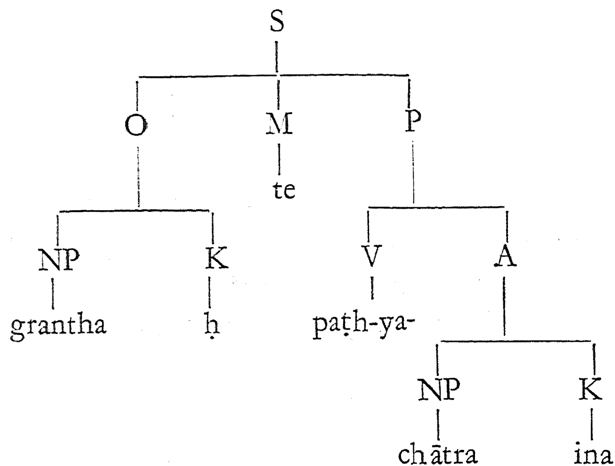
Figure V



14. Ross, J. R., (1970), pp. 251-252 : a scrambling rule 'optionally permutes major elements of a clause, subject to various conditions.' In this study, this problem is ignored, and, henceforth, no reference to it will be made. Also Ross, J. R., (1967,)-pp. 71-80; Lakoff, R. T., (1968), pp. 95, 103 (f. n. 9).

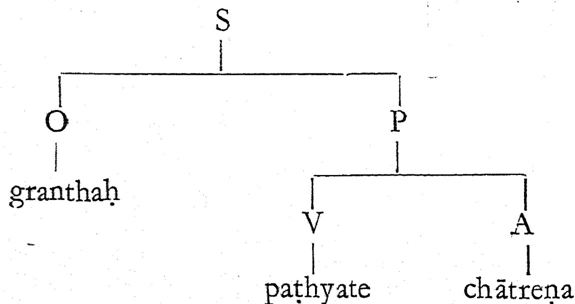
The affix-substitution rule applies and replaces features with affixes and the result is as in Figure VI.

Figure VI



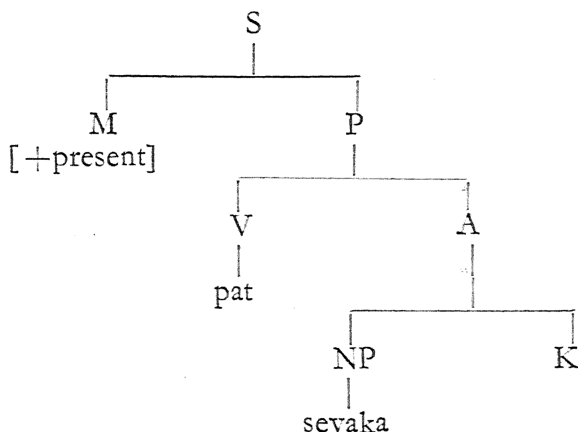
The final form is as in Figure VII

Figure VII



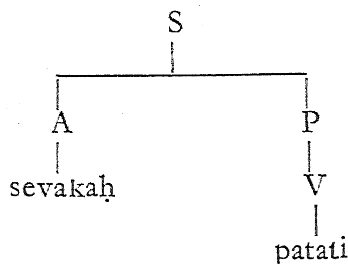
Sentences 1 and 8 have the underlying structure as in Figure VIII.

Figure VIII



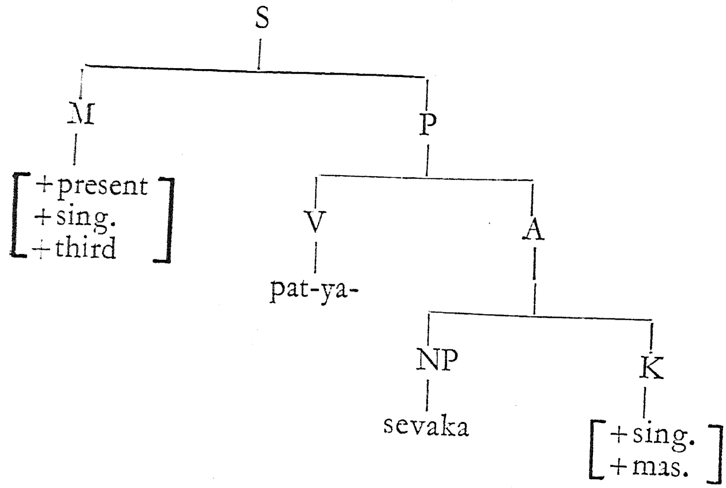
The subjectivalisation-rule selects A for agreement with the V (as in Figure II), and the affix-substitution rule replaces features with affixes (as in Figure III), and the final form is as represented in Figure IX (omitting intervening details).

Figure IX



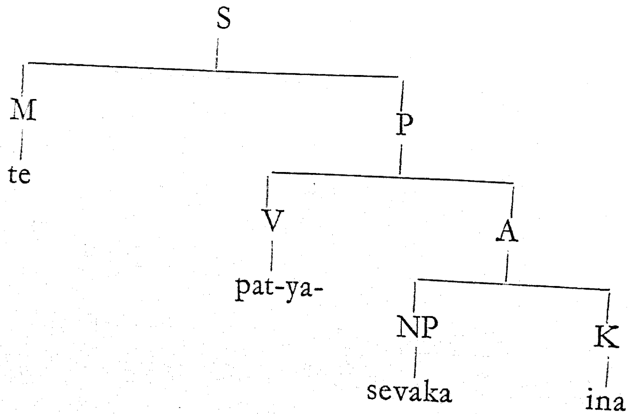
Alternatively, at the stage of Figure VIII, the subjectivalisation-rule does not apply, and the process of passivisation without subjectivalisation operates. The result is as in Figure X (from Figure VIII).

Figure X



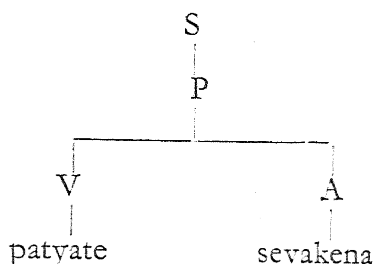
The affix-substitution rule applies and the result is as in Figure XI

Figure XI



The final form is as represented in Figure XII.

Figure VII



It may be noted that the process of passivisation without subjectivalisation differs from the process of passivisation in that the M always selects (in the former case) the unmarked features [+sing], [+third], as is evident from sentences 9′-12′.

9. mūrkhāḥ — hasanti
A nom
fo ols laugh

9′. mūrkhaiḥ — hasyate
A i
by fools — is laughed
((it) is laughed by fools)

10. mūrkhaḥ — hasati
A nom
fool — laughs

10′. mūrkheṇa — hasyate
A i
by fool — is laughed
((it) is laughed by the fool)

11. bālāḥ — śayane — svapanti
A nom L l
girls — in bed — sleep
(the girls sleep in bed)

11′. bālābhiḥ — śayane — supyate
A i L stet
by girls — in bed — is slept
((it) is slept in bed by the girls)

12. bālā — śayane — svapiti
A nom L
girl — in bed — sleeps
(a girl sleeps in bed)

12′. bālayā — śayane — supyate
A i L
by girl — in bed — is slept
((it) is slept in bed by the girl)

The case-category A is distinguished from D, as it occurs in a case-frame which is assigned to non-stative verbs. Non-stative verbs are those that may occur in reply to the query 'kim-karoti' (what does (x-do).[15] Thus, the verb-forms in sentence 13 are non-stative, and have an A in their case-frames, and those in sentence 14 are stative and have a D in their case-frames.

sa-kim-karoti : 13. A sa — { paṭhati (reads) / khelati (plays) / gāyati (sings) / hasati (laughs) }
he-what-does he
(what is he doing)

sa-kim-karoti . 14*. sa — { jīvati (is alive) / vidyate (exists) / asti (is) / bhavati (becomes) / cintayati (worries) / āste (stays) }

It may be noted that sentences (14) are deviant only as replies to the relevant question.

II. I. 2. In this section, R is distinguished from A and D. All these three case-categories are assigned to arguments of a verb which are realised by NP's with the feature [+animate].

15. Thus, the case-categories A, D are distinguished from each other on syntactic criterion as well.

It was mentioned above (II.1.1) that R presupposes the occurrence of A/D (cf. sentences 4, 5) in its case-frame. This case-category is distinct from A/D, because, though the entity specified as R undergoes or accepts the effect of an activity or state identified by the verb, it does not initiate it. Fillmore has not postulated a case-category like R (f.n.1). It may be that whatever is specified here as R, is subsumed under his D[16], which would make possible the elimination of a case-category like R. Let it be accepted that R is not needed, and there is only D in addition to A. Now, consider sentences 2 and 4 above, wherein both 'sevakaḥ' (in 2) and 'chātram' (in 4) are re-specified as D (rather D^1 and D^2 for convenience). The subjectivalisation-rule applies to the underlying structures of sentences 2, 4 and selects the D 'sevaka' (in 2) and the A 'guru' (in 4) for subjectivalisation. But, as mentioned earlier, subjectivalisation-rule operates optionally, and in case it does not apply, the D^1 'sevaka' (in 2) does not enter into agreement with the V. Now, the problem is, how to account for this difference in syntactic behaviour of D^1 and D^2 (in 2, 4) ? One may argue that D co-occurring with A (as in 4) must be subjectivalised, in case A is not subjectivalised. But, this does not solve the problem. Consider sentence 5. Even Fillmore's definitions (II. 1. 3) would specify 'mātā' (in 5) as D. Now, what case-category is to be assigned to 'putram' ? It will be correct to assume that Fillmore would or will have to specify 'putram' as D (unless he invents another case-category). Apart from the fact that this occurrence of two Ds (in 5), in a simple sentence, goes against his principle of 'one-instance-per-clause',[17] it creates another problem. How

16. For discussion see II. 1. 3.
17. Fillmore, C. J., (1971), p. 248.

to account for the fact that the subjectivalisation-rule selects 'mātā' (D^1) for agreement with the V, and in case D^1 is not subjectivalised, 'putram' (D^2) necessarily enters into agreement with the V, with the consequential operation of the process of passivisation. To get round this problem, one may suggest that Fillmore would respecify D^2 ('putram') as O. But, this does not solve the problem. In II. 2 .1. 1 it is argued that there is need to distinguish R from O. Besides, this suggestion, if followed in a sentence like 15, would make the specification of case-categories problematic. What case-category is to be assigned to 'putram' in 15, O or D ? Following the assignation of O to 'putram' in sentence 5, one would be inclined to specify 'putram' in 15 as O. The result is, again, the occurrence of two O's in one simple sentence, and the consequential problem of selecting one of the O's, in case the process of passivisation operates.

15. pitā — putram — dharmam — brūte
A O O
father — son — religion — speaks
(the father speaks to his son about religion)

It is difficult to anticipate the solution that may be suggested by Fillmore. But, there appears to be sufficient justification for the case-category R as postulated in this section.

II. 1. 3. The three case-categories A, D, R have been distinguished above. Now, in the light of the above discussion (II. 1. 1., II. 1. 2), the definitions[18] given by Fillmore with reference to A, D, E(xperiencer) are examined below.

The case-category A has been defined more or less consistently, and, in this analysis, the definition given

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18. Fillmore, C. J., (1968a), p. 24; (1969), p. 116; (1971), pp. 251, 253.

to account for the fact that the subjectivalisation-rule selects 'mātā' (D^1) for agreement with the V, and in case D^1 is not subjectivalised, 'putram' (D^2) necessarily enters into agreement with the V, with the consequential operation of the process of passivisation. To get round this problem, one may suggest that Fillmore would respecify D^2 ('putram') as O. But, this does not solve the problem. In II. 2 .1. 1 it is argued that there is need to distinguish R from O. Besides, this suggestion, if followed in a sentence like 15, would make the specification of case-categories problematic. What case-category is to be assigned to 'putram' in 15, O or D ? Following the assignation of O to 'putram' in sentence 5, one would be inclined to specify 'putram' in 15 as O. The result is, again, the occurrence of two O's in one simple sentence, and the consequential problem of selecting one of the O's, in case the process of passivisation operates.

15.	pitā —	putram —	dharmam —	brūte
	A	O	O	
	father —	son —	religion —	speaks
	(the father speaks to his son about religion)			

It is difficult to anticipate the solution that may be suggested by Fillmore. But, there appears to be sufficient justification for the case-category R as postulated in this section.

II. 1. 3. The three case-categories A, D, R have been distinguished above. Now, in the light of the above discussion (II. 1. 1., II. 1. 2), the definitions[18] given by Fillmore with reference to A, D, E(xperiencer) are examined below.

The case-category A has been defined more or less consistently, and, in this analysis, the definition given

18. Fillmore, C. J., (1968a), p. 24; (1969), p. 116; (1971), pp. 251, 253.

in 'the Case for Case' (1968a)[19] is accepted. As specified above, sentences 1, 4, 6-13, 15 contain the case-category A.

In so far as the case-category D[20] is concerned, there have been proposals to replace it with Experiencer.[21] It is proposed to discuss Experiencer first (as defined by Fillmore f. n. 21), and, then, take up Dative (f. n. 20).

II. 1. 3. 1. The case-category Experiencer is not defined explicitly enough to indicate which of the two NP's (in case there are two NP's in the case-frame) in relation to a psychological event or mental state verb, is to be specified as Experiencer. Consider a sentence like 5 above. The NP's 'mātā' (mother) and 'putram' (son) are both related to the verb 'cintayati'. However, it may be interpreted (in favour

19. Fillmore, C. J., (1968a), p. 24 : 'Agentive, the case of the typically animate perceived instigator of the action identified by the verb.' Cf. Fillmore, C. J., (1969), p. 116 : 'Agent, the instigator of the event'. Cf. Fillmore, C. J., (1971), p. 253 : "the principal cause' interpretation of the Agent case seems, for many sentences, to be quite adequate'.
The problem of NP's indicating natural phenomena is discussed in II. 3. 3. I.

20. Fillmore, C. J., (1968a), p. 24 : 'Dative, the case of the animate being affected by the state or action identified by the verb.'

21. Fillmore, C. J., (1969), p. 116: 'Experiencer, the entity which receives or accepts or experiences or undergoes the effects of an action (earlier called by me 'Dative')'. Cf. Fillmore, C. J., (1971), p. 251 : 'I have reanalysed the old Dative by spreading it around among the other cases. Where there is a genuine psychological event or mental state verb, we have the Experiencer, where there is a non-psychological verb which indicates a change of state, such as one of dying or growing, we have the Object. Where there is a transfer or movement of something to a person, the receiver as destination is taken as the Goal.'

of the definition) that the NP which indicates initiation of the psychological event or mental state verb, is to be specified as Experiencer. Thus, 'mātā', and not 'putram', is Experiencer.So far, there appears to be no difference between the old Dative (f. n. 20) or Dative as analysed above (II.1.1) and Experiencer except the terminological one. Now, consider sentences like 16, 17, wherein the case-categories, following Fillmore (f. n. 21), have been specified as O, E.

16.	sohanaḥ	—	mriyate
	O		dies
	s.	—	
17.	sohanaḥ	—	glāyati / cintayati
	E		
	s.	—	feels weary / worries

Whatever process, psychological or non-psychological, may be involved in feeling weary or worrying or dying, the way the NP 'sohanaḥ' is affected in 16, is not different from that in 17. In other words, if no external agency affects 'sohanaḥ' in 17, so is the case in 16. Thus, there is no reason why the 'sohanaḥ' in both 16 and 17 should not be specified either as E or O. In so far, as syntactic justification is concerned, there appears to be none. The subjectivalisation-rule applies to both (16, 17) optionally, and, in case O/E is not selected for agreement with the V, the process of passivisation without subjectivalisation operates in the case of both 16, 17 as is evident from 16′, 17′.

16′.	sohanena	—	mṛyate
	O i		
	by s.	—	is died
	((it) is died by s.)		
17′.	sohanena	—	glāyate / cintyate
	E i		
	by s.	—	is felt weary / is worried
	((it) is felt weary / worried by s.)		

Again, take a sentence like 18, wherein Fillmore's definition of E, O(f. n. 21 (1971)) would lead to the postulation of two Os despite the explicit constraint against such a possibility.

18. mātā — putram — paśyati
O nom O acc
mother son sees
(the mother looks at her son)

It is not clear, how the subjectivalisation-rule is to be specified in relation to its operation in sentence 18. In sentence 15, the problem relates to the process of passivisation, and in 18, it relates to the process of subjectivalisation as well : namely, how one of the two Os is to be selected for subjectivalisation, and in case the subjectivalisation-rule does not apply, how one of the Os will be selected for passivisation.

The problem created by bringing in O as a partial substitute of D (f. n. 21 (1971)) is evident from sentences like 19.

19. sevakaḥ — prabhum — mārgam — pṛcchati
A ? O
servant — master — way — asks
(the servant asks the master about the way)

It is not clear, whether E or O should be assigned to the unspecified NP in 19. If it is specified as E, it goes against the definition of Fillmore (f. n. 21 (1971)), and if it is O, then, again, the problem in regard to passivisation (i. e. due to the occurrence of two Os) crops up.

In order to strengthen his position that O like E is, at least partially, a replacement of D, and, thus, there is some sort of link between O and E (f. n. 21 (1971)), Fillmore suggests that embedding dominated by O may be related to a psychological event (f. n. 21 (1971)) as in sentence 20.

But, the embedding under O may relate to non-psychological events as well, as in sentences 21, 22.

20. pitā — cintayati [yat — putraḥ — kīdṛśaḥ — asti]
O S S
father — worries — that — son — how — is
(the father worries as to how his son is)

21. sainikaḥ - amriyata [yataḥ - deśaḥ no - parābhūyeta]
OS S
soldier - died so that - country-not - may be subjugated
(the soldier died so that his country might not be subjugated)

22. sainikaḥ — śatrūn — hanti [yataḥ — te — ākramiṣyanti]
O S S
soldier — enemies — kills as — they — will attaek
(the soldier kills the enemy as they will attack)

Considering sentences like 16-22, it is proper to ignore E, O (as defined in f. n. 21 (1971)) as replacements for either the old D(f. n. 20) or old E (f. n. 21 (1969)).

Fillmore mentions that his old Dative (f. n. 20) includes what may be treated as Goal (f. n. 21). But, this does not appear to be convincing in view of his suggestion for a case-category like Benefactive,[22] in addition to D. However, it is proposed here to identify Goal as a case-category distinct from AD (II. 4. 5).

II. 1. 3. 2. Now, that Experiencer as defined by Fillmore ((1971) f. n. 21) need not be accepted, it would be relevant to examine Experiencer (f. n. 21) and Dative[23] (f. n. 20) in re-

22. Fillmore, C. J., (1968a), p. 32.
23. There appears to be no difference between D (1968a) and E (1969) as defined by Fillmore.

lation to D and R as specified in II. 1. 1. and II. 1. 2. above. There are three possibilities : D (1968a) and /or E(1969) as defined by Fillmore (f. n. 20, 21), includes (i) both D and R or (ii) only D or (iii) only R, as explicated by me in II. 1. 1. and II. 1. 2. Whichever possibility is accepted, it indicates that D and R, as analysed above in II. 1. 1. and II. 1. 2., are established on different grounds. As specified in II. 1. 1. and II. 1. 2., D initiates a state identified by the verb (as opposed to A which is the initiator of an action identified by the verb), and R is the case affected by the state or action identified by the verb. As it has already been shown, D and R need to be distinguished from each other, and from A also, so there appears nothing to add on this point.

II. 1. 4. Before this section (II. 1) is concluded, one point needs to be considered. It has been suggested that there are sentences which indicate intentional or non-intentional involvement of an actant in the action identified by the verb. Now, the question is : should the NP specified as A, if there is non-intentional involvement, be rather considered a D ?

Consider sentences 1, 24-26.

24. bālakaḥ — pātrāṇi — bhanakti
A O
boy — pots — breaks
(the boy breaks the pots)

25. bālakaḥ — aNgulim — churikayā — chinatti
A O I
boy — finger — with knife — cuts
(the boy cuts his finger with a knife)

26. rāmaḥ — viṣam — bhuNkte
A O
he — poison — eats
(he takes poison)

In all these sentences (1, 24-26), there may be an alternative interpretation which shows no intentional involvement of A. Now, one may argue that as the actant is non-intentionally involved in the action, the case-category should be specified as D rather than as A. It is possible to disambiguate such sentences by adding adverbials like 'sāvadhānam' (carefully) and 'nipuṇam' (cleverly / skilfully). In case either of these adverbials occurs in sentences 1, 24-26, the interpretation would be always intentional, and the actant would be specified as A.

But, despite the above argument, there appears to be no need to make this distinction in case-specification. The use of adverbials simply brings out the intentionality or non-intentionality of the actant, and it does not make a non-stative verb a stative one, even conceptually. Consider sentences 25, 26 specially. Whether the action performed is intentional or non-intentional, there is no difference in the way it is performed. In fact, the vagueness in sentences 1, 24-26 may be attributed to our knowledge of the world i. e. we know that one would not normally perform an action like falling or cutting one's finger or swallowing poison.

Again, there are verbs like 'hasati' (laughs), 'likhati' (writes), 'yāti' (goes) which may involve intentional or non-intentional participation of an actant, but no one would like to suggest that the case-category may be either A or D in the context of these verbs. Besides, stative verbs like 'paśyati' (sees) and 'kṛśyati' (becomes lean) may involve intentionality or non-intentionality of an actant, still, the case-category in their case-frames is specified as D.

Thus, it appears reasonable not to take account of intentionality or non-intentionality of an actant for case-specification.

II. 2 This section deals with the O(bjective) and F(active)/R(esult) cases and cognate objects. As these have been considered related in one way or other, it is appropriate that they be discussed together, even though they appear, at first sight, to be different kinds of construct.

In sub-section II. 2. 1 the case-category O is discussed. In sub-section II. 2. 2, the F/R as a case-category distinct from O, and the relevance of cognate objects in relation to F/R are examined.

II. 2. 1 The case-category O is discussed in sub-sections II. 2. 1. 1., II. 2. 1. 2, II. 2. 1. 3. 1., II. 2. / 3. 2. In II. 2. 1. 1 definitions of O are taken up. In II. 2. 1. 2 sentences containing O are shown through their derivations. In II. 2. 1. 3. 1 and II. 2. 1. 3. 2 the process of passivisation which involves R(eceptive) as well, is discussed. In II. 2. 1. 4 sentences which allow obligatory deletion of A/D, are referred to.

II. 2. I. 1 According to Fillmore the case-category O is assigned to the entity that moves or changes or whose position or existence is in consideration.[24] Neither this nor an alternative difinition[25] is followed up with exemplification or amplification. The only change (from a to b) worth noting, appears to be the elimination of the feature [animate].[26] This is implied in Fillmore's remark about Experiencer and Object case-categories wherein the two are considered to appear in complementary distribution, the Object being

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24. Fillmore, C. J., (1969), p. 116.

25. Fillmore, C. J., (1971), p. 251 : 'The Object case is that of the entity which moves or which undergoes changes, and I still use it as a waste-basket, sentences embedded to Objects can serve to identify, for example, the content of a psychological event as with the verbs of judging or imagining.'

26. Fillmore, C. J. (1971), p. 251 : 'I no longer confuse selection restrictions to animates with true case-like notion.'

assigned in the context of a non-psychological verb indicating a change of state.[27] But, with this definition of O, sentences like 1, 2 would pose problem for Fillmore with regard to case-assignment, as he would have to specify two occurrences of O, thus, breaking his 'one-instance [of one case-category bsk] -per-clause principle.'[28]

1.	sohanaḥ	—	tām	—	paśyati
	O		O		
	s.	—	her	—	looks
	(s. looks at her)				
2.	rāmaḥ	—	tām	—	ādriyate
	O		O		
	r.	—	her	—	respects
	(r. respects her)				

Secondly, there appears to be little syntactic justification (Fillmore has given none in 'Some Problems for Case-Grammar'), for bringing O in line with A(gentive) and E(xperiencer) by eliminating the feature of [animacy]. As developed by Fillmore, the case-categories A, E are assigned to entities which are [+animate[29]]. Now, his definition of O (f. n. 27) indicates that it may be assigned to an entity which is [+animate]. Moreover, though O is assigned in relation to non-psychological verbs (f. n. 27), the sentence-embedding under O may be in relation to verbs of judging and imagining (f. n. 25). Thus, the demarcation between E and O becomes hazy to the extent that the definition or explication of the O, as in 'Some Problems for Case-Grammar',

27. Fillmore, C. J., (1971), p. 251 : 'Where there is a non-psychological verb which indicates a change of state, such as one of dying or growing, we have the Object.'
28. Fillmore, C. J., (1971), p. 248.
29. Fillmore, C. J., (1971), pp. 249-250; 253-255, 261.

appears to be of no relevance to distinguish it as a case-category. So, the elaboration of O, as in 'Some Problems for Case-Grammar', is ignored[30] and, in the following discussions, it is proposed to refer to the case-category O[31] as '(i) the semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the verb, is identified by the semantic interpretation of the verb itself; (ii) conceivably the concept should be limited to things which are affected by the action or state identified by the verb.''[32] This definition contains two parts (marked by me as) (i) and (ii). The first part accounts for sentences like 3, 4, 5 and the second for sentences like 6.

3.	bālikā	—	gānam	—	gāyati
	A		O		
	girl	—	song	—	sings
	(the girl sings a song)				
4.	atithiḥ	—	gamanam[33]	—	karoti
	A		O		
	guest	—	going	—	does
	(the guest leaves)				

30. For some problems arising out of this postulation of O, see sub-sections 2.2., 2.3.

31. The postulation of O 'as a waste-basket' (Fillmore, C. J., (1971), p. 251) raises a problem for his case-theory, which is referred to in Chap. VI.

32. Fillmore, C. J., (1968a), p. 25 : 'the term (Objective bsk) is not to be confused with the notion of direct object, nor with the name of the surface case, synonymous with 'accusative.''

33. Constructions like 'gamanam-karoti' are discussed in II. 2. 2. 2. Towards the end of II. 2. 2. 2, it is proposed that such constructions may be covered by the process of nominalisation.

5.(i) nadī — vahati (ii) vāyuḥ — vāti (iii) sūryaḥ — dīvyati
O O O
river — flows wind — blows sun — shines

6. (i) sohanaḥ — paridhānam — rañjayati
A O
s. — dress — dyes
(s. dyes the dress)

(ii) rāmaḥ — patram — paṭhati
A O
r. — letter — reads
(r. reads a letter)

The case-category O is assigned to the entities which are [—animate] and, thus, it is distinguished from the case-category R(eceptive),[34] assigned to the entities which are [+animate], and are affected by the action or state identified by the verb. The case-category R appears distinguished from O on three points. In the first instance, R, as opposed to O (as in sentence 5 above),can never occur alone. Its occurrence in a case-frame presupposes A/D. Consequently, O may be selected for subjectivalisation, even in the absence of the process of passivisation, but R can be subjectivalised only when the process of passivisation has operated. Secondly, in a sentence like 7, there is need to distinguish R and O ('one-instance-per-clause principle' may be recalled).

7. yātrikaḥ — nāgarikam — mārgam — pṛcchati
A nom R acc O acc
tourist — city dweller — way — asks
(the tourist asks the city-dweller the way)

Thirdly, if R is distinguished from O which is assigned to inanimate entities, the embedding under O for processes like complementation appears semantically more appropriate.

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34. This case-category is mentioned first (to my knowledge) by Wilson (1971).

II. 2. 1. 2. In this sub-section, the case-category O is specified in relation to different syntactic structures. The case-frames in the sentences below, are [A, I, O—] in 8, 9; [I—] in 10, 10′; [A, I, R—] in 11, 12; [I—] in 13, 13′; [A, O—] in 14, 15, 17, 18; [O—] in 16, 16′, 19, 19′. The derivations of 8, 9, 10, 14-16 are given in detail, those of 11, 12, 13, are limited to their underlying structures. The derivations of 17-19 being similar to that of 14-16, are not indicated.

8. śatruḥ — agninā — grāmam — dahati
A nom I i O acc
enemy — with fire — village — burns
(the enemy burns the village with fire)

9. śatruṇā — agninā — grāmaḥ — dahyate
A i I i O nom
by enemy — with fire — village — is burnt
(the village is burnt with fire by the enemy)

10. agniḥ — dahati — (svayameva)[35]
I nom
fire — burns — (itself)

10′. agninā — dahyate — (svayameva)
I i
by fire — is burnt — (itself)
((it) is burnt by fire (by itself))

11. ākheṭakaḥ — dhanuṣā — paśūn — vidhyati
A nom I i R acc
hunter — with bow - animals — shoots
(the hunter shoots animals with a bow)

12. ākheṭakena — dhanuṣā — paśavaḥ - vidhyante
A i I i R nom
by hunter — with bow — animals — are shot
(animals are shot with a bow by the hunter)

35. This sentence with a case-frame [I–] is given here to compare with sentences 16, 16′, 19′, 19′ which have a case-frame like [0–].

13. dhanuḥ — vidhyati — (svayameva)
I nom
bow — shoots — (itself)

13′. dhanuṣā — vidhyate — (svayameva)
I i
by bow — is shot — (itself)
((it) is shot by the bow (by itself))

14. sūdaḥ — odanam — pacati
A nom F acc
cook — bolied rice — cooks
(the cook cooks bolied rice)

15. sūdena — odanaḥ — pacyate
A i F nom
by cook — boiled rice — is cooked
(boiled rice is cooked by the cook)

16. odanaḥ — pacyate — (svayameva)
F nom
boiled rice — cooks — (itself)

16′. odanena— pacyate — (svayameva)
F i
by boiled rice — is cooked — (itself)
((it) is cooked by boiled rice (by itself))

17. takṣakaḥ — kāṣṭham — bhinatti
A nom O acc
carpenter — wood — splits
(the carpenter splits the wood)

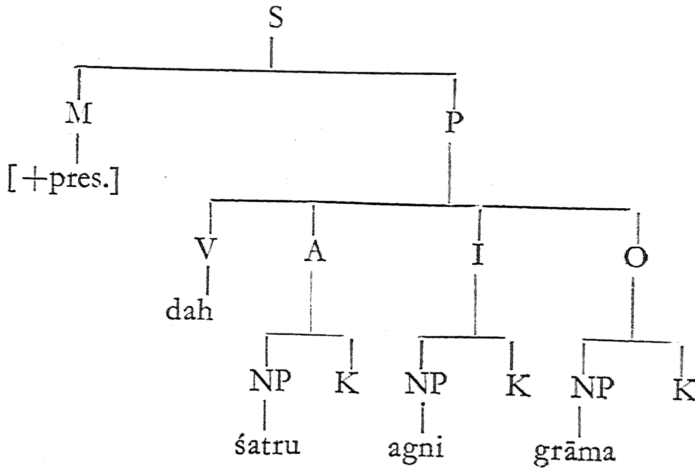
18. takṣakeṇa — kāṣṭham — bhidyate
A i O nom
by carpenter — wood — is split
(wood is split by the carpenter)

19. kāṣṭham — bhidyate — (svayameva)
O nom
wood — splits — (itself)

19′ kāṣṭhena — bhidyate — (svayameva)
O i
by wood — is split — (itself)
both=((it) is split by the wood (by itself))

Sentences 8,9 have an underlying structure as represented in Figure I.

Figure I

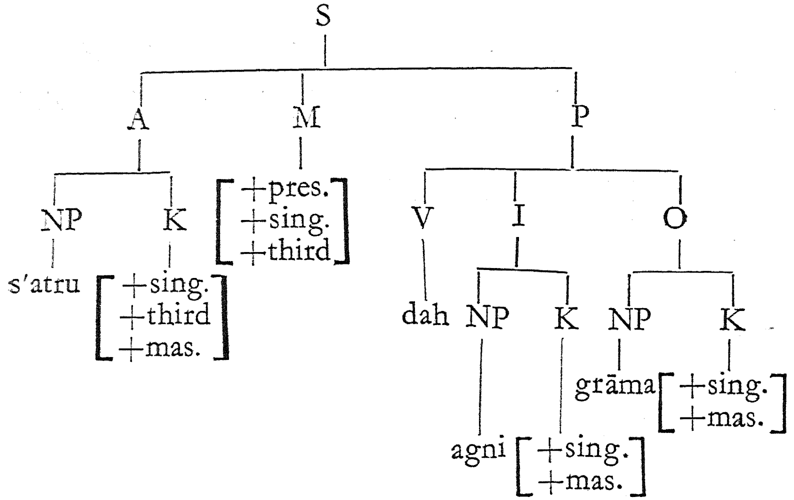


The subjectivalisation-rule[36] applies and selects A. The result is as given in Figure II.

36. It may be noted that the subjectivalisation-rule in Sanskrit is optional. But, whenever the case-frame contains R and/or O/F, in addition to A/D, and A/D is not selected for subjectivalisation, R or O or F, as a general rule, is selected for subjectivalisation. This process is referred to as passivisation with subjectivalisation (II. 1. 1).

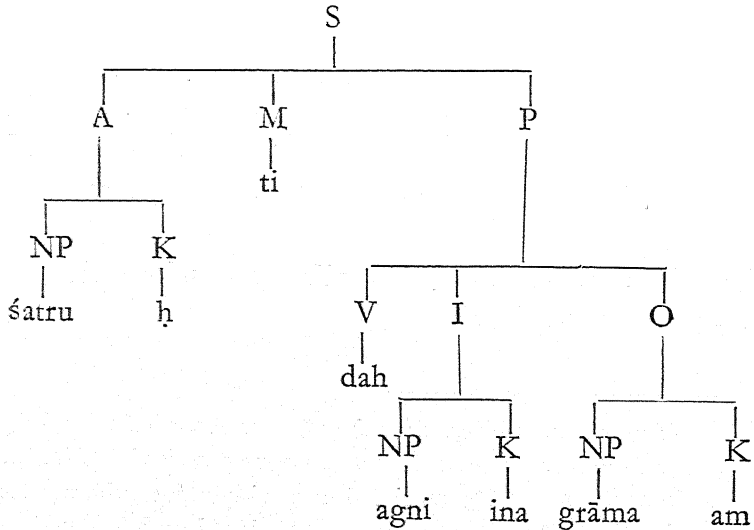
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Figure II



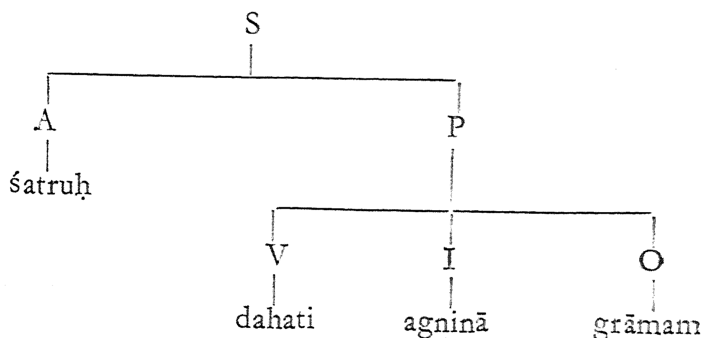
The affix-substitution rule replaces the features with affixes, and the result is as represented in Figure III.

Figure III



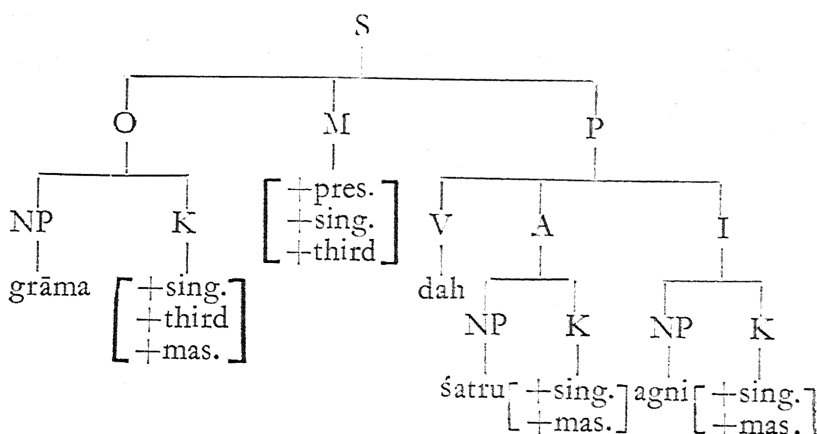
The final form (aside from scrambling) is as given in Figure IV.

Figure IV



Alternatively, if the subjectivalisation rule does not select A (see f. n. 36), O is selected for subjectivalisation, and the representation is as in Figure V (from Figure I).

Figure V

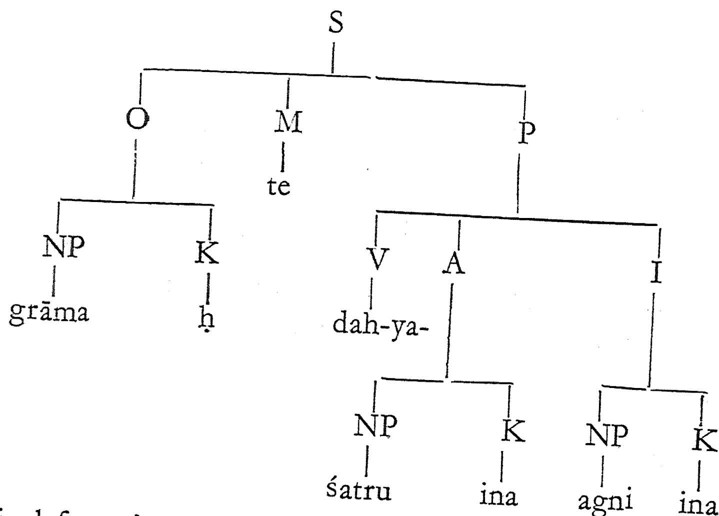


The affix-substitution rule replaces the features with affixes. It may be noted that if O(or R/F) is selected for subjectivalisation (and A/D is also present in the case-frame), M selects an affix which belongs to the 'te'-class,[37] rather than the 'ti'-

37. See f. n. 10.

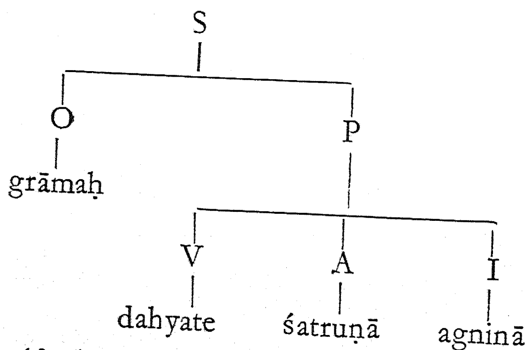
class, the stem-element 'ya' is added to the V.[38] The result is as in Figure VI.

Figure VI



The final form is as represented in Figure VII.

Figure VII

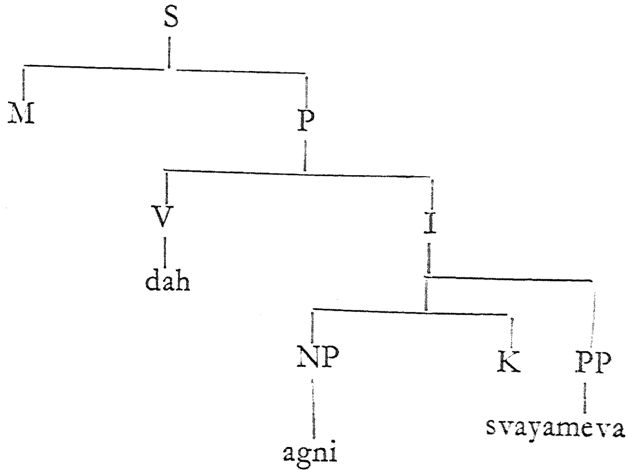


Sentences 10, 10′ have the underlying structure as in Figure VIII.

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38. The whole process may be referred to as that of passivisation. If the form under the V contains the 'ya' element already, no 'ya' element is added as in 'dīvyati/dīvyate'.

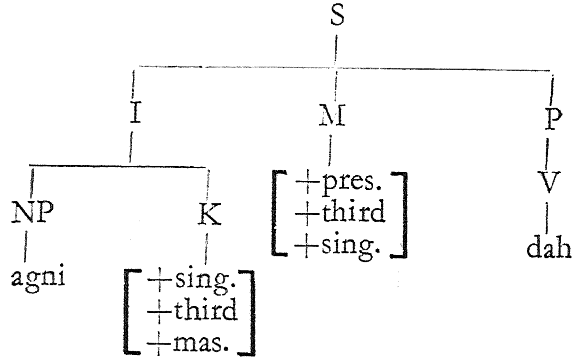
Figure VIII



It may be noted that I is the only case-category in the case-frame of sentences 10,10′ (like the F/O in 16, 16′, 19, 19′ and the I in 13, 13′). If there is another case-category in the case-frame, I cannot be selected for subjectivalisation.[39] The P(ost)-P(osition) 'svayameva' (by itself) bars the occurrence of any other case-category in the case-frame of a simplex. I is selected for subjectivalisation. The P(ost)P(osition) 'svayameva' is deleted optionally. The result is as in Figure IX.

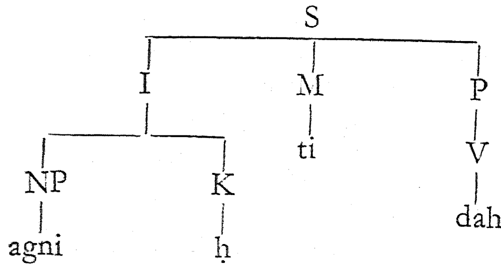
39. A sentence like 'agniḥ-grāmam-dahati' (fire-village-burns : fire burns the village) appears doubtful. Even if it is argued that, in this sentence, the NP 'agniḥ' indicating a natural phenomenon (cf. II. 3. 3. 1) behaves idiosyncratically as an I, sentences like 10, 13, 16, 19 do not allow the occurrence of any other case-category in their case-frames, if they have to convey the sense of 'svayameva' (by itself) (cf. f. n. 41).

Figure IX



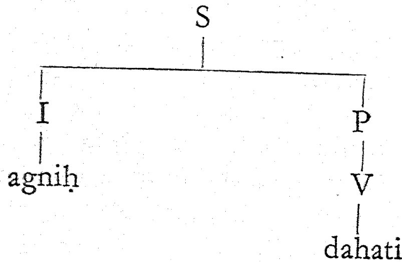
The affix-substitution rule replaces the features with affixes, and the result is as in Figure X.

Figure X



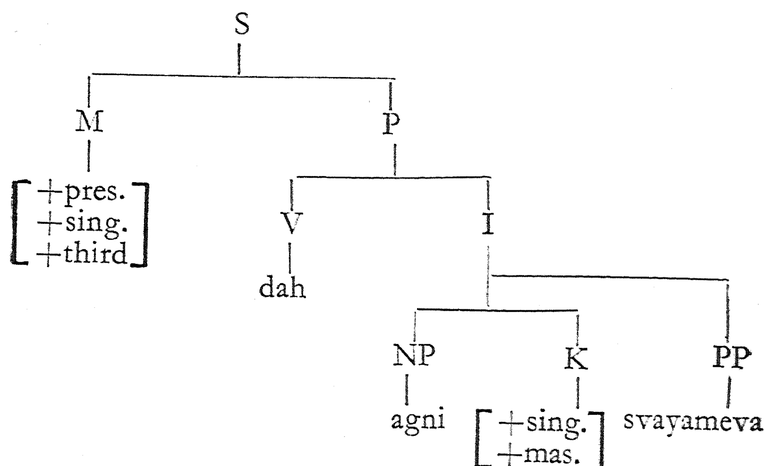
The final form is as represented in Figure XI.

Figure XI



It may be recalled that the subjectivalisation-rule being optional, it may be that no case-category is selected for subjectivalisation. In such a case, (i) the M indicates [+third], [+singular], (ii) the affix under M shows 'te' rather than 'ti', (iii) and the stem-element 'ya' is added to V.[40] I is not selected for subjectivalisation and the result is as represented in Figure XII (from Figure VIII).

Figure XII



The affix-substitution-rule replaces the features with affixes. The Post-Position is deleted optionally. The final form is as in Figure XIV via Figure XIII.

40. Recall the process applied to figure VI (f. n. 38). This process is similar to the earlier with the difference that no case-category is subjectivalised, and consequently the M, as it does not take on the features of [number] and [person] of any case-category, always indicates the features [+third] [+person] [+singular]. This process may be referred to as passivisation without subjectivalisation.

Figure XIII

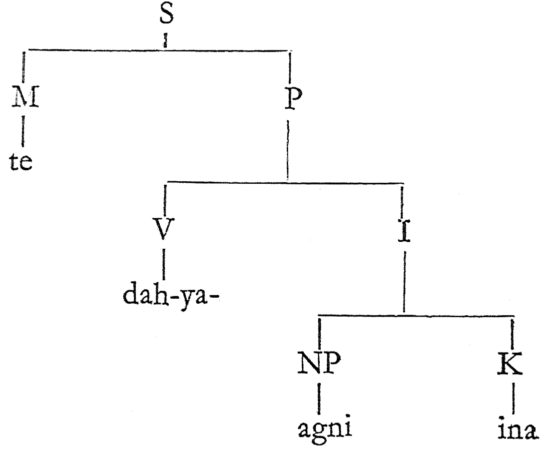
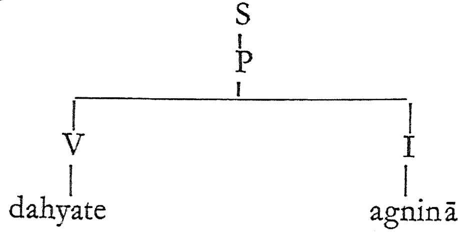
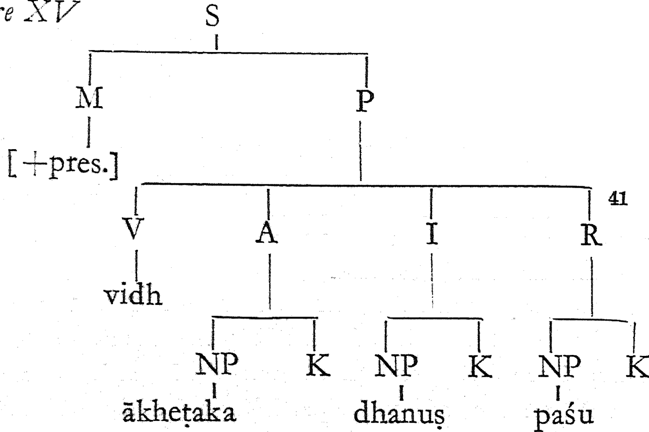


Figure XIV



Sentences 11, 12 have the underlying structure as in Figure XV.

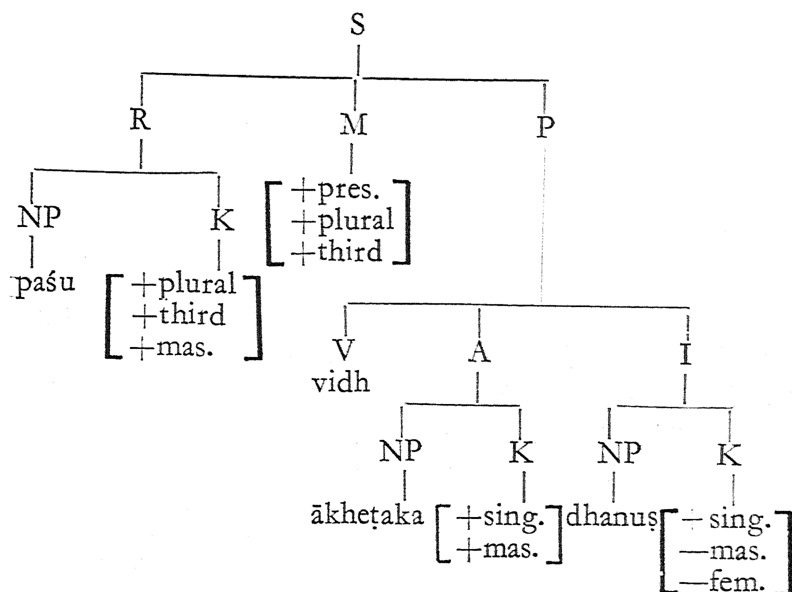
Figure XV



41. Here there would be no difference if R is replaced by O. But as mentioned earlier (II. 2. 1. 1) there is need to distinguish a case-category like R from O.

The subjectivalisation-rule applies and selects A, the process as applied in the case of Figures II, III, IV, follows and gives the sentence 11. Alternatively, A is not selected, and R being in the case-frame, is selected for subjectivalisation. The result is as in Figure XVI. It may be noted that M indicates the feature [+plural] taken from R.

Figure XVI

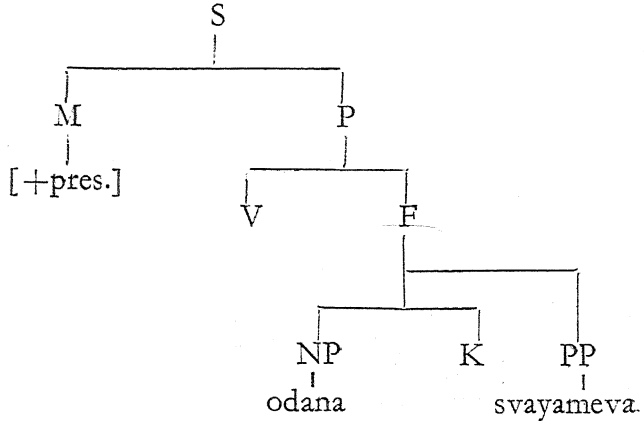


The process of passivisation as in the case of Figures VI, VII, applies and gives the sentence 12.

Sentence 13 has a derivation similar to that of sentence 10 (figures VIII, IX, X). If I is not selected for subjectivalisation (as in figure XII), the process of passivisation without subjectivalisation (f. n. 40) applies and, through configurations similar to those in figures XII, XIII, XIV, we get sentence 13′ above.

Sentences 14, 17 and 15, 18 have derivations similar to those of 8, 11 and 9, 12 respectively. The derivation of sentence 16 is shown. Sentence 19 has a derivation similar to that of 16, and hence is not shown. Sentence 16 has the underlying structure as in Figure XVII.

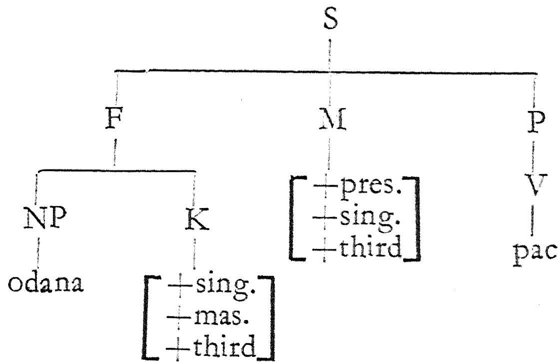
Figure XVII



It may be noted that the subjectivalisation-rule is optional. If A/D also occurs in the case-frame (as in Figure I), in addition to R/O/F/GO, and the subjectivalisation-rule does not select A/D, R/O/F/GO must be selected for agreement with the verb. In the above configuration, only F occurs (recall sentence 10 has only I in its case-frame)[42], and the subjectivalisation-rule applies, and selects it for agreement with the V. The P(ost) P(osition) 'svayameya' is deleted optionally. The result (omitting intervening details) is as in Figure XVIII.

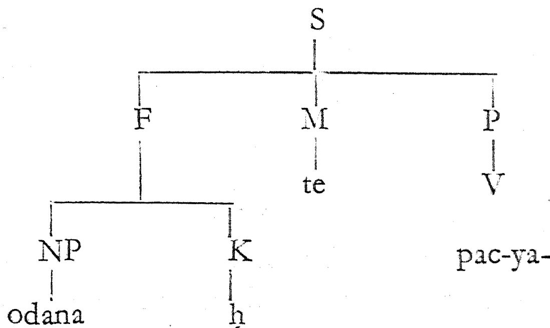
42. f. n. 39 may be recalled. 'agniḥ' (fire) as a natural phenomenon may be subjectivalised, indicating an idiosyncratic characteristic in a construction like 'agniḥ-grāmam-dahati.' But, in no case would a sentence like 16 allow the occurrence of another case-category. Besides, if the sense of 'by itself' is to be conveyed, even I in sentence 10 would not allow the occurrence of another case-category.

Figure XVIII



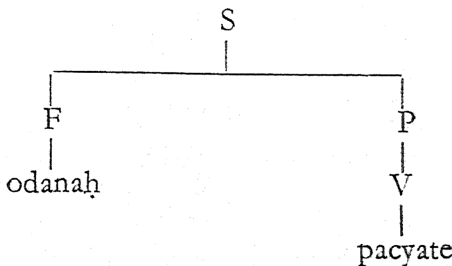
The process of passivisation applies and the affix-substitution rule operates. The result is as in Figure XIX.

Figure XIX



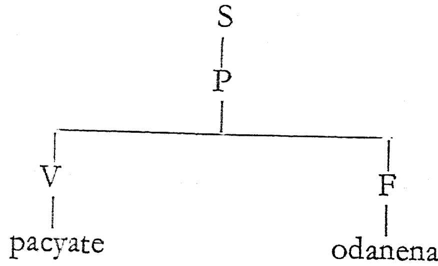
The final form is as in figure XX.

Figure XX



Again, the subjectivalisation-rule need not apply at the stage of figure XVII and, consequently, the process of passivisation without subjectivalisation (as in figure XII) applies, and the final form (aside from scrambling) (leaving out the intervening details) is in figure XXI.

Figure XXI



Sentences 19, 19′, will have a derivation similar to that of sentences 16, 16′ above (through figures XVII—XXI).

It may be mentioned that sentences 10, 10′, 13, 13′, 16, 16′, 19, 19′, all indicate that the action/process is accomplished easily, as indicated by the occurrence of the Post-Position 'svayameva' (by itself) in their underlying structures. Such constructions allow only one case-category (i.e. I/0) in their case-frames. In this sense, sentences 10″ (recall f. n. 39, 42), 13″, 16″ are unacceptable (sentences 13″, 16″ are, anyway, unacceptable).

10″. ?	agniḥ —	grāmam	.	dahati
	I	O		
	fire —	village	—	burns
	(fire burns the village)			
13″. *	dhanuḥ —	paśūn	—	vidhyati
	I	R		
	bow —	animals	—	shoots
	(the bow shoots the animals)			

16″.	odanaḥ F	—	sthālyām L	—	pacyate
	rice	—	in pot	—	cooks

(rice cooks in the pot)

In the case of [0—], but not in the case of [I—], the process of passivisation also operates (cf. sentences 10, 13, 16, 19). Sanskrit grammarians would try to distinguish the verb-forms 'pacyate', 'bhidyate' in 16, 19 from those in 16′, 19′, on the ground that there being difference in their pitch-accent,[43] they need to be derived differently. As mentioned in the beginning, no note of pitch-differentiation is taken in this analysis, and, therefore, there appears to be no necessity to propose different derivational processes for verb-forms 'pacyate' and 'bhidyate' in sentences 16, 19 and 'dahyate' and 'vidhyate' in sentences 10′, 13′. This is further supported by the verb-forms 'pacyate' and 'bhidyate' in 16′, 19′ wherein it would be difficult to separate the two processes.

II. 2. 1. 3. 1. In this sub-section, a set of sentences is considered, in which, there is subjectivalisation of a case-category other than R/O/F (which are present in the case-frame), in case the subjectivalisation-rule does not select A/D. Consider sentences 20″, 21″, 22″, 23″ wherein a case-category co-occurring with R/O/F enters into agreement with the V, as A/D is not selected for subjectivalisation.

20.	gopaḥ A nom	—	goḥ SO ab	—	dugdham F acc	—	dogdhi
	milkman	—	from cow-		milk	—	milks
20′.	gopaḥ A nom	—	gām SO acc	—	dugdham F acc	—	dogdhi
	milkman	—	cow	—	milk	—	milks

both = (the milkman milks (milk from) the cow)

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43. Singh, J. D., (1970), pp. 33-34.

20″. gopena — gauḥ — dugdham — duhyate
A i SO nom F acc
by milkman — cow — milk — is milked
(milk is milked from the cow by the milkman)

21. sūdaḥ — taṇḍulebhyaḥ[44] — odanam — pacati
A nom SO ab F acc
cook — from rice — boiled rice — cooks

21′. sūdaḥ — taṇḍulān — odanam — pacati
A nom SO acc F acc
cook — rice — boiled rice — cooks
both=(the cook cooks boiled rice out of rice)

21″. sūdena — taṇḍulāḥ — odanam - pacyante
A i SO nom F acc
by cook — rice (s)— boiled rice - are cooked
(boiled rice is cooked out of rice by the cook)

22. guruḥ — śiṣyāya — dharmam — brūte
A nom R d O acc
teacher — for pupil — religion — talks

22′. guruḥ — śiṣyam — dharmam— brūte
A nom R acc O acc
teacher — pupil — religion — talks
both=(the teacher talks on religion to the pupil)

22″. guruṇā — śiṣyaḥ — dharmam — ucyate
A i R nom O acc
by teacher — pupil — religion — is talked
(the pupil is talked to by the teacher on religion)

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44. Later Sanskrit commentators consider it to be 'karaṇa' (INSTRUMENTAL : upper face indicates that it is not to be identified with I/i), which appears to be wrong. Cf. Roy, S., (1920), p. 12 : he says that it could be either 'karaṇa' or 'apādāna' (SOURCE). Cf. Bhaṭṭojidīkṣita, (p. 523): 'tattvabodhinī' commentary says it is 'karaṇa'and (by implication). 'adhikaraṇa' (LOCATIVE).

On the other hand Patañjali mentions 'edhaḥ' (fuel) as 'karaṇa', and not 'taṇḍula' (rice), p. 325. He gives a Genitive form of 'taṇḍula, as in 'taṇḍulānām-odanam-pacati' (of rices-boiled rice-(he) cooks (he cooks boiled rice)), p. 332.

23. bālakaḥ — sārameyam – vraje — ruṇaddhi
A nom R acc L l
boy — dog — in enclosure — holds

23′. bālakaḥ — sārameyam — vrajam — ruṇaddhi
A nom R acc L acc
boy — dog — in enclosure – holds
both=(the boy holds the dog in an enclosure)

23″. bālakena — sārameyam – vrajaḥ – rudhyate
A i R acc L nom
by boy — dog — in enclosure – is held
(the dog is held in an enclosure by the boy)

It may be noted that in sentence 22, R and O co-occur and it is R, and not O, that enters into agreement with the V in sentence 22″. This selection of a case-category other than R/O/F for agreement with the V, if A/D occurs in the case-frame and is not selected for subjectivalisation, is limited to a set of twelve verbs. Of these, four are given above (20-23). There has been some disagreement among the traditional grammarians regarding the exact number of such verbs.[45]

II. 2. 1. 3. 2. In this sub-section, a further set of sentences which allow a case -category other than R/O/F to be in

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45. Roy, S., (1920), p. 11 : he quotes Bhaṭṭojidīkṣita's list of 12 verbs : (i) dogdhi (milks), (ii) yācate (begs), (iii) pṛcchati (asks), (iv) ruṇaddhi (holds), (v) brūte (speaks), (vi) śāsti (instructs), (vii) pacati (cooks), (viii) cinoti (gathers), (ix) jayati (wins), (x) mathnāti (churns), (xi) muṣṇāti (steals), (xii) daṇḍayati (punishes). Cf. Subrahmanya Sastri, P. S., (1970) (vol. V) p. 110 : he refers to Patañjali's list which contains the first six of Bhaṭṭojidīkṣita's list and (vii) bhikṣate (begs). Kaiyaṭa adds (ix), (xi), (xii) of Bhaṭṭojidīksita's list to that of Patañjali. Cf. Bhojadeva (1100 A. D.), p. 13 : he refers to the list of Patañjali, and adds two to his lists : (i) 'karoti' (does), (ii) 'gṛhṇāti' (takes).

agreement with V, in case A/D is not selected for subjectivalisation, is considered. In sentences 24″, 26″ L and I are in agreement with the V respectively. This selection of L and I induces the operation of the process of passivisation and is conditioned by the occurrence of the pre-verb 'adhi' with the verbs 'śete/tiṣṭhati/āste' (sleeps/sits/stays) in sentence 24″, and by the occurrence of the verb 'dīvyati' (gambles) in sentence 26″ (cf. in sentences 24″, 26″, L and I are not in agreement with the V respectively, and passivisation without subjectivalisation takes place).

24. sundarī — śayane — śete/tiṣṭhati/āste
A nom L l
beautiful lady — in bed — sleeps/sits/stays

24′. sundarī — śayanam — adhi – śete/tiṣṭhati/āste
A nom L acc
beautiful lady – in bed — sleeps/sits/stays
both=(a beautiful lady sits/sleeps/stays in bed)

24″. sundaryā — śayanam-adhi-śayyate/sthīyate/āsyate
A i L nom
by beautiful lady-bed—is slept in/sat into/stayed in
(the bed is slept in/sat into/stayed in by a beautiful lady)

24‴. sundaryā — śayane - śayyte/sthīyate/āsyate
A i L l
by beautiful lady - in bed - is slept in/sat into/stayed in
(the bed is slept in/sat into/stayed in by a beautiful lady)

It may be noted that sentences 25, 25′ are unacceptable.

25.* sundaryā — śayane-adhi-śayyate/sthīyate/āsyate
A i L l
by beautiful lady - in bed - is slept in/sat into/stayed in

25′.* sundaryā — śayanam - śayyate/sthīyate/āsyate
A i L nom
by beautiful lady - bed - is slept in/sat into/stayed in

In sentence 26 I co-occurs with A. In sentence 26″, A is not subjectivalised and I being optionally selected for agreement with the V, the process of passivisation operates. But, in sentence 26″, I is not selected for agreement with the V, and passivisation without subjectivalisation takes place.

26. dyūtakaraḥ — akṣaiḥ — dīvyati
A nom I i
(a gambler gambles with dice)

26.′ dyūtkaraḥ — akṣān — dīvyati
A nom I acc
gambler — dice — gambles
(a gambler gambles with dice)

26.″ dyūtakareṇa — akṣāḥ — dīvyante
A i I nom
by gambler — dice — are played
(dice are played by a gambler)

26′″. dyūtakareṇa — akṣaiḥ — dīvyate
A i I i
by gambler — with dice — is played
((it) is played with dice by a gambler)

Before concluding this sub-section, it is worth noting that the process of passivisation may operate, but R/O need not be selected for agreement with V due to co-occurrence of some post-position. In sentences 28, 29, 30, the occurrence of 'prati' and 'antareṇa' blocks the selection of R and O for agreement with the V as in sentences 28′, 29′, 30′. However, the process of passivisation without subjectivalisation applies.

28. guruḥ — śiṣyam — prati - vadati
A nom R acc
teacher — pupil to — speaks
(the teacher speaks to the pupil)

28′. guruṇā — śiṣyam prati - ucyate
A i R acc
by teacher — pupil to — is spoken
(pupil is spoken to by the teacher)

29. svāmī — geham prati — paśyati
D nom O acc
owner — house to — looks
(the owner looks at the house)

29′. svāminā — geham prati — dṛśyate
D i O acc
by the owner — house to — is looked
(the house is looked at by the owner)

30. mātā — putram-antareṇa — cintayati
D nom R acc
mother — son about — worries
(the mother worries about (her) son)

30′. mātrā — putram prati — cintyate
D i R acc
by mother son about — is worried
((it) is worried about son by the mother).

It may be noted that sentences 28‴, 29‴, 30‴ which undergo the process of passivisation, along with the selection of R and O for agreement with the V, are unacceptable.

28″.* guruṇā — śiṣyaḥ prati — ucyate
A i R nom
by teacher — pupil to — is spoken

29″.* svāminā — geham prati — dṛśyate
A i O nom
by owner — house to — is seen

30″.* mātrā — putraḥ antareṇa — cintyate
A i R nom
by mother — son about — is worried

In case the post-positions 'prati' and 'antareṇa' do not occur, the R/O agrees with the V, and the process of passivisation applies, and we obtain sentences 31, 32, 33.

31.	guruṇā	—	śiṣyaḥ	—	ucyate
	A i		R nom		
	by teacher	—	pupil	—	is spoken
	(the pupil is spoken to by the teacher)				
32.	svāminā	—	geham	—	dṛśyate
	D i		O nom		
	by the owner	—	house	—	is looked
	(the house is looked at by the owner)				
33.	mātrā	—	putraḥ	—	cintyate
	D i		R nom		
	by mother	—	son	—	is worried
	((it) is worried about son by the mother)				

It may be noted that sentences 31′, 32′, 33′ with R/O not in agreement with the V and the process of passivisation operating, are unacceptable.

31′.*	guruṇā	—	śiṣyam	—	ucyate
	A i		R acc		
	by teacher	—	pupil	—	is spoken
32′.*	svāminā	—	geham	—	dṛśyate
	D i		O acc		
	by owner	—	house	—	is looked
33′.*	mātrā	—	putram	—	cintyate
	D i		R acc		
	by mother	—	son	—	is worried

II. 2. 1. 4. In this sub-section, a set of sentences, in which A/D is obligatorily deleted (in fact, A/D is a dummy), and O is obligatorily subjectivalised, along with the process of passivisation operating, is considered. The case-category O may dominate an embedded S as well, as in sentence 35. Consider sentences 34, 35.

34. rāṣṭragānam — gīyate
O nom
national anthem — is sung
(national anthem is sung)

35. śrūyate-[pāṭaliputre—aśokaḥ — avasat]
O L i A nom
is heard-in Patna — a. — lived
(it is heard, a. lived in Patna)

Sentence 34 has the underlying structure as in figure XXII and 35 has as in figure XXIII.

Figure XXII

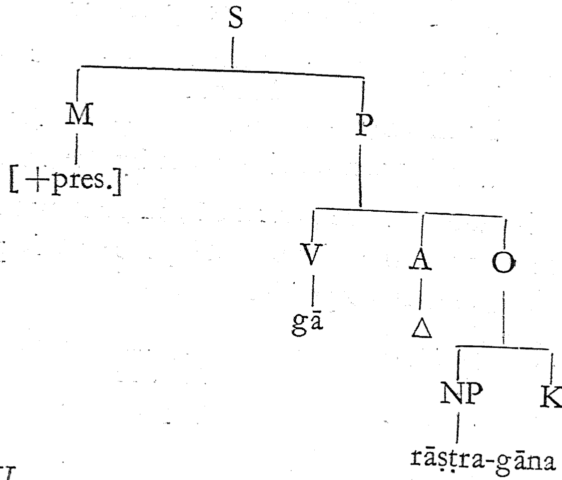
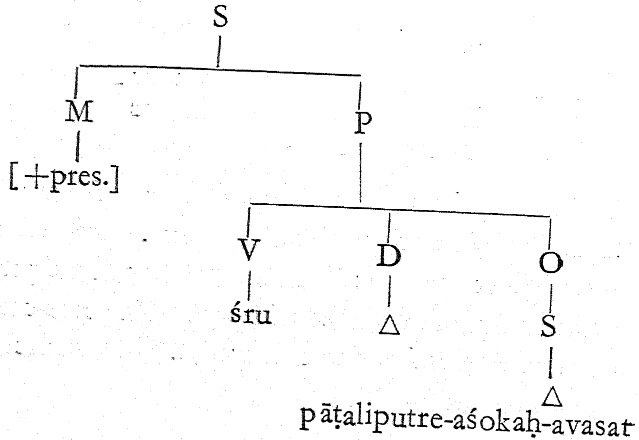


Figure XXIII



II. 2. 2. In this sub-section the case-category F(actitive)/Re(sult), as distinct from O is discussed, and its relation to cognate objects is examined.

II. 2. 2. 1. The case-category F is proposed in 'the Case for Case'.[46] In 'Types of Lexical Information',[47] F is replaced with Re. But, this change in nomenclature is not followed by any discussion at all, and thus, it is of no relevance. Besides, Re, as defined above, is covered by F. Recently, the elimination of F/Re as a distinct case-category has been proposed.[48] According to this latter proposal, F/Re may be covered by GO(al). But, consider sentences like 36, 37.

36.	sūdaḥ	—	bhaktam	—	pacati
	A		F		
	cook	—	boiled rice	—	cooks
	(the cook cooks boiled rice)				
37.	kaviḥ	—	gītam	—	racayati
	A		F		
	poet	—	song	—	composes
	(the poet composes a song)				

46. Fillmore, C. J., (1968a), p. 25 : 'the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb.' This definition has two parts which are taken up later (II. 2. 2. 2).

47. Fillmore, C. J., (1969), p. 116 : 'the entity that comes into existence as a result of the action.'

48. Fillmore, C. J., (1971), pp. 251-252 : 'Since the Goal case is used to indicate the later stage or end result of some action or change, it can absorb what I used to call 'Resultative' or 'Factitive', that is, it specifies the end result role of a thing which comes into existence as a result of the action identified by the predicator, as in 'I wrote a poem' or 'I constructed a bridge'. As Fillmore's above proposal occurs in 'Some Problems for Case-Grammar', I would refer to the earlier position (as in f. n. 46, 47 above) as 'Pre-Problems' position.

The case-category F as specified in sentences 36, 37 (according to 'Pre-Problems' definitions) would be replaced by GO(al) following the 'Post-Problems' position of Fillmore. But, even accepting his definition of Goal,[49] it does not appear to assign the GO to the NP, S specified as F above. Secondly, if his contention is accepted, even O in sentence 38 could be a GO.

38. mātā — patram — paṭhati
A nom O acc
mother — letter — reads
(mother reads the letter)

However, he gives only six lines to his suggestion (f. n. 48). Considering all these, it is appropriate that the discussion of F/Re (and also of O and cognate objects) is confined to their treatment in 'the Case for Case' (f. n. 46).

II. 2. 2. 2. Now the question is : is the case-category F syntactically justified ? Is it related to cognate objects, and does the concept of cognate objects support its postulation ?

Consider sentences 39, 41 and 40, 42 in which the NP's 'patram' and 'āsandī' are assigned the case-categories F and O respectively.

39. sītā — patrm — likhati
A F
s. — letter — writes
(s. writes a letter)

40. sītā — patram — paṭhati
A O
s. — letter — reads
(s. reads a letter)

---

49. See II. 4. 6.

41. takṣakaḥ — āsandīm — nirmāti
A F
carpenter — chair — makes
(the carpenter makes a chair)

42. takṣakaḥ — āsandīm — bhanakti
A O
carpenter — chair — breaks
(the carpenter breaks the chair)

Sentences 40, 42, but not 39, 41, are possible in reply to sentence 43, because they (40, 42) indicate the existence of the letter/chair prior to the initiation of the action.

43. sītā/takṣakaḥ — patrasya/āsandyāḥ — kim — karoti
s. / carpenter - of letter / of chair — what — does
(what does she/carpenter do to the letter/chair ?)

Fillmore brings in the notion of cognate objects[50] to justify the postulation of F. Sentences with cognate objects 'are constructions in which at the very least, there is a high selectivity between a specific V and an object N, and in which the V+N combination in one language might well be matched by a V alone in another.'[51] Consider sentences like 44, 45.

44. sā — aśanam — aśnāti
she — meal — eats
(she eats (her) meal)

45. sā — aśanam — karoti
she — eating — does
(she eats)

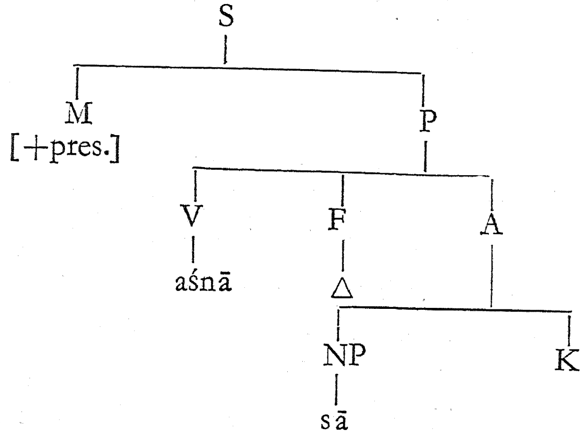
According to Fillmore, sentences parallel to

50. Fillmore, C. J., (1968a), pp. 85-86 : under the section 'problems and suggestions'.

51. Fillmore, C. J., (1968a), p. 85. But even in the same language a V+N construction may match with a V construction (sentences 44, 45 above).

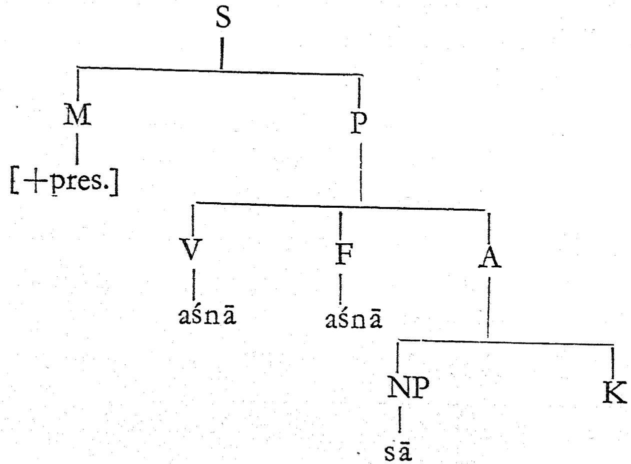
44, 45 have the underlying structure as in figure XXIV with F dominating a dummy (irrelevant details are eliminated).

Figure XXIV



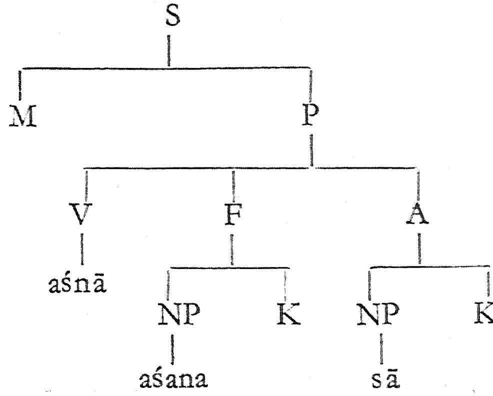
A copying rule, then, fills the dummy under F with the item under V. The result is as in figure XXV.

Figure XXV



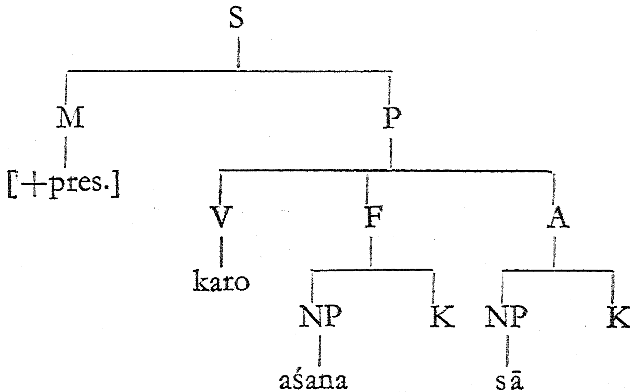
By another rule the V under F assumes the form of N (as in figure XXVI).

Figure XXVI



Fillmore proposes one rule[52] to combine the two processes: 'copy the N-representative of the V under the F'. At the stage of figure XXVI, sentence 44 is derived. Alternatively, by a rule,[53] the V assumes a pro-V form, and the result is as in figure XXVII.

Figure XXVII



52. Fillmore, C. J., (1968a), p. 85.
53. Fillmore, C. J., (1968a), p. 85, 'Replace the V by the designated pro-V.' In Sanskrit, there is no verb-form comparable to 'have' in English which acts as a pro-verb among others. However, the verb-form 'karoti' (sentences 45, 46) functions as a pro-verb in a large number of constructions.

Sentence 45 is derived from a configuration as represented in figure XXVII. Fillmore's rule (ii) appears to be an over-simplification. 'Traditional grammars call objects like song, sleep, breath 'cognates' because the noun in the so-called direct object position is morphologically related to the verb.'[54] This definition of cognate objects is covered by the first rule (of Fillmore), but not by the second rule. Thus, according to this, sentence 45 would not be related to cognate objects. Fillmore would like to extend the definition of cognate objects.[55] Thus, he would consider a sentence like 45 as well as a sentence like 46 related to cognate objects (it may be be noted that sentence like 46′ is unacceptable. Sentence 46″ is acceptable, but, then, sentences 46′, 46″ are not synonymous).

46.	sā	—	śayanam	—	karoti
	A				
	she	—	sleeping	—	does
	(she sleeps)				
46′.*	sā	—	śayanam	—	śete
	she	—	sleeping	—	sleeps
46″.	sā	—	śayane	—	śete
	A		L		
	she	—	in bed	—	sleeps
	(she sleeps in bed)				

Fillmore's extension of cognate objects to cover sentences like 45, 46 is not discussed here further, as I do not

54. Baron, N. S., (1971), p. 71.

55. Fillmore, C. J., (1968a), p. 85 : 'Some words may be treated as cognate-object V's even though the rule for replacing the pro-V is obligatory'. His example is 'nightmare nightmare' => 'have nightmare' (p. 86).
V F
F

support the position that the concept of cognate objects is relevant for the postulation or the case-category F, as it is evident from the discussion below.

Now, examine the relationship between cognate objects and F. Recall the definition of F (f. n. 46) and consider sentences 47-50 along with 44, 45.

47. paṭakārah — paṭam — vayati
A F
weaver — cloth — weaves
(the weaver weaves a cloth)

48. mūrtikārah — mūrtim — racayati
A F
idol-maker — idol — makes
(the idol-maker makes an idol)

49. sa- { bhuNkte : eats / gacchati : goes / paṭhati : reads } | { bhojanam : eating- / gamanam : going / paṭhanam : reading } -karoti
he does

50. sundarī — madanalekham — likhati
A F
beautiful lady — love letter — writes
(the beautiful lady writes a love-letter)

Sentences 44 and 45 are not parallels. Sentence 44 cannot have a continuation as in 44′, but 45 can have as in 45′.

44′.* sā — roṭikāyāḥ — aśanam — āśnāti
A
she — of bread — food — eats

45′. sā — roṭikāyāḥ — aśanam — karoti
A
she — of bread — eating — does

It may be noted that 44″ is acceptable.

44″. sā — { roṭikām / aśanam } O — aśnāti

she — bread/food — eats

(she eats bread/food)

Thus, in 44, in accordance with the criterion given above (II. 2. 1. 1), the NP 'aśanam' will be assigned the case-category O, and not F. Some may say that sentence 45 is an instance of a construction with deletable object. The notion of deletability of objects does not appear to be of significance for postulating case-categories, as, it is for the distinction between transitive and intransitive verbs[56], and in a case-grammar, the distinction between transitive and intransitive verbs need not be retained, as it is accounted for differently.

In sentences 47, 48 the NP's marked as F are not cognate objects. In 50 the cognate object is also F. The part one of F's definition by Fillmore (i. e. 'the case of the object resulting from the action or state identified by the verb' (f.n.4) accounts for sentences 50 (which has a cognate object), 47, 48 (which do not contain cognate objects), and leaves out sentence 44 (which contains a cognate object). Thus, the concept of cognate objects neither fully accounts for the case-category F nor makes the cognate objects a subset of F.

Sentences 45, 46, 49 can be considered to contain cognate objects (this is an extension of the concept of cognate objects by Fillmore as mentioned above), and can be specified F only when the part II of the definition of F (i. e.

56. Lehrer, Adrienne, (1970), p. 227; 'some linguists have treated verbs which occur with or without objects as transitive verbs that allow their objects to be deleted.'

'understood as a part of the meaning of the verb' (f.n. 46)) is taken into account. But, if this is so, how is F distinct from O, at least partially (cf. II. 2. 1. the first part of the definition of O) ? As explicated above, the concept of cognate objects does not appear to account for the case-category F. And as this is so, there is no need to retain the part two of the definition of F as its sole purpose has been to account for instances like 45, 46, 49 above. The process of nominalisation (see IV. 3. 2.) may account for the phenomenon of cognate objects.

II. 2. 2. 3. In this sub-section I revert to the problem of the status of F as a distinct case-category. There has been a suggestion[57] to distinguish the performance of a song which is already in existence from the creation of a new song by singing, as in sentences 51, 52.

51. sītā — jayadevasya — gītam — gāyati
A O g
s. — of j. — song — sings
(s. sings the song of j i. e. composed by j)

52. sītā - gītam — gāyati
A F|O
s. — song — sings
(s. sings a song)

Sentences like 52 are ambiguous because the song may be already composed (as in sentence 51) or is being created while singing.

Consider sentences 53-56 which indicate the indeterminacy of any semantic criterion to distinguish F from O.

53. sūdaḥ — dugdham — pacati
A O
cook — milk — boils
(the cook boils milk)

---

57. Lehrer, Adrienne, (1970), p. 249.

54. sohanaḥ — taṇḍulān/māṃsam — pacati
A O
s. — rice / meat — cooks
(s. cooks rice/meat)

55. sītā — roṭikām — pacati
s. — bread — cooks
(s. cooks bread)

56. sītā — bhojanam — pacati
F
s. — food — cooks
(s. cooks food)

In sentences 53-56, the verb-form 'pacati' occurs in the context of the NP's whose status as F/O cannot be specified on the basis of semantic criterion only. In 53, 'dugdham' is O, and not F, as its resultative aspect is insignificant. In 54, which stage do the NPs specified as F indicate ? : rice and meat when they are put on the oven or when they are taken off the oven ? In sentence 55, the NP 'roṭikām' (bread) is F to an Indian, but an O to an Englishman. And, in 56, the resultative aspect of 'bhojanam' is definitely relevant. All these might suggest that resultative and non-resultative are points along a semantic continuum.[58]

However, in this situation, the relevance of a syntactic criterion cannot be ignored. In the beginning of the sub-section II. 2. 2. 2. reference is made to one syntactic criterion for the distinction between F and O, and whose application successfully specifies the case-categories in sentence 55, the case-category F is assigned to 'roṭikām' (bread), because, in Sanskrit, sentence 55 is not possible as a reply to the query 'sītā-roṭikāyāḥ - kim - karoti' (s. - of bread - what does).

58. Baron, N. S., (1971), p. 75.

There has been a suggestion[59] to eliminate the case-category F. The reason given is the indeterminacy arising out of the application of a semantic criterion. But, this situation may obtain in the case of other case-categories as well, and it is precisely in such situations that syntactic criterion plays a crucial role. It has been further suggested[60] that the motivation for postulating a case-category like F lies in the adherence to the rule that there should not be more than one occurrence of one case-category in a simple sentence. Thus, in a sentence like 'he has a dream about Jayā' the case-frame, as suggested, is [D+F+O—] rather than [D+O+O—]. But this suggestion does not solve the problem. There are similar sentences like 'he thought *about the plan/about the child*', 'the teacher talked *about the student*', in which the case-category O/R could be assigned to the NP's underlined. A case-category like 'referential' has been suggested (but not developed) by some linguists.[61] Whatever may be the ultimate selection, the postulation of F appears to be only a partial solution of this problem.

II. 3. The case-category I(nstrumental) is assigned to an NP which is 'the inanimate force or object causally involved in the action or state identified by the verb.'[62] If the NP (acting as an argument of a verb) is not inanimate, the case-category assigned to it, cannot be an I. Thus, sen-

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59. Baron, N.S. (1971), p. 75. Cf., Fillmore, C. J. (1971): he proposes to drop F and assign G to the NP's concerned (see f.n. 48).

60. Baron, N. S., (1971), p. 77.

61. Stockwell, R. P., et. al., (1968), vol. II, p. 957.

62. Fillmore, C. J., (1968a), p. 24. Cf. id., (1969), p. 116: 'the stimulus or immediate physical cause of an event'. Cf. id. (1971), p. 251 : 'the case of immediate cause of an event or the stimulus, the thing reacted to'.

tence 1 has an I, but not sentences 2 and 3. Sentence 2 is unacceptable.[63]

1.	chātraḥ	—	kalamena	—	likhati
	A nom		I i		
	student	—	with pen	—	writes
	(the student writes with a pen)				
2.*	chātraḥ	—	bālakena	—	likhati
	A nom		I i		
	student	—	with boy	—	writes
3.	chātraḥ	—	bālakena	—	lekhayati[64]
	PR		A		
	student	—	by boy	—	makes write
	(the student makes the boy write)				

63. Sentence 2 is acceptable, if interpreted as an instance of Comitative(for details, Kumar, *Coordination in Sanskrit* (forthcoming), and as an alternative form of 'chātraḥ-bālakena—saha—likhati' 'chātraḥ—bālakaḥ-ca-likhataḥ' (the student and the boy write).

64. PR (ompter) refers to the case-category which initiates an action/state identified by the verb, in addition to an A (gentive). These constructions containing PR and A, may be referred to as causative constructions. Such constructions being complex, there is no inconsistency if PR also is referred to as A/D (as the case may be). However, PR is used to distinguish it from A/D of the embedded S, and, secondly, the use of PR indicates the neutralisation of A /D in the matrix S (i. e. the matrix S would show PR in place of A/D).

Causative constructions do not necessarily involve morphological distinction of verbal forms. Sentence A is a non-causative construction, sentence B is a causative one.

A.	bālakaḥ	—	pustakāni	—	gaṇayati		
	A nom		O acc				
	boy	—	books	—	counts		
	(the boy counts books)						
B.	pitā	—	bālakena	—	pustakāni	—	gaṇayati
	PR nom		A i		O acc		
	father	—	by boy	—	books	—	makes count
	(the father makes the boy count the books)						

In a sentence like 4, the NP 'hastinā' specified as I should be interpreted as 'with the body of an elephant' (hastinaḥ-śarīreṇa).[65] This is supported by the unacceptability of a sentence like 5[66].

4. duṣṭaḥ - hastinā - dvāram - ruṇaddhi
A I O
wicked - with elephant - door - obstructs
(the wicked obstructs the door with an elephant)

5.* guruḥ — bālakena — patram — likhati
A I O
teacher — with boy — letter — writes

The above characteristic of I becomes explicit, if sentences 6 and 7 are compared. Sentence 6 is derived from an underlying structure as represented in figure I. But, sentence 7 has an underlying structure which is not complex (as in figure II).

6. sa — sevakena — bhittim — pātayati
PR A O
he — by servant — wall — makes fall
(he makes the servant knock the wall over)

7. sa — khanitreṇa — bhittim — pātayati
A I O
he — with spade — wall — makes fall
(he knocks the wall over with a spade)

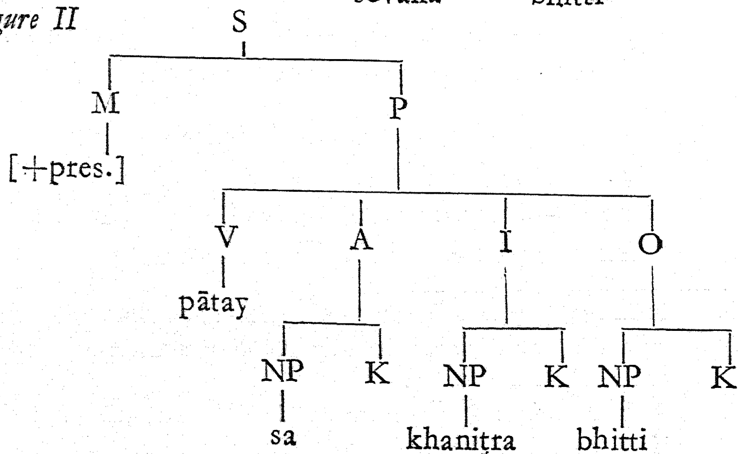
65. Fillmore, C. J., (1968a), p. 24 (f. n. 32) : he refers to, and discusses an example suggested by P. Postal : 'I rapped him on the head with a snake.'

66. Refer to f. n. 63 above, sentence 5 like sentence 4, is acceptable, if it is interpreted as an instance of Com.

Figure I

- S
  - M
    - [+pres.]
  - P
    - V
      - [+causative]
    - PR
      - NP
        - sa
      - K
    - O
      - S_1
        - M
          - [+pres.]
        - P
          - V
            - pātay
          - A
            - NP
              - sevaka
            - K
          - O
            - NP
              - bhitti
            - K

Figure II



II. 3. 1. The case-category I is distinguished from A/D/R/O/F. It is distinct from A/D as a subjectivalisation-rule normally selects A/D for subjectivalisation, and not I. If A/D is not selected, and R and/I are present in the case-frame, the process of passivisation applies to R, but not to I. If I is the only case-category, in addition to A/D which has not been subjectivalised, the process of passivisation without subjectivalisation operates.[67] Moreover, A/D/R are assigned to NP's which are [+animate], but I is not.

The case-category I is also distinct from F/O, though both are assigned to NP's which are [-animate]. If a case-frame contains the case-categories A, I, O, and A is not selected for agreement with the V, then, it is O rather than I which is selected by the process of passivisation. Thus, a sentence like 8 would correspond to 9 wherein O, not I, enters into agreement with the V. If I is selected for agreement (as in sentence 10), the sentence is unacceptable.

8. mātā — churikayā — phalam — chinatti
A nom — I i — O acc
mother — with knife — fruit — cuts
(the mother cuts fruit with a knife)

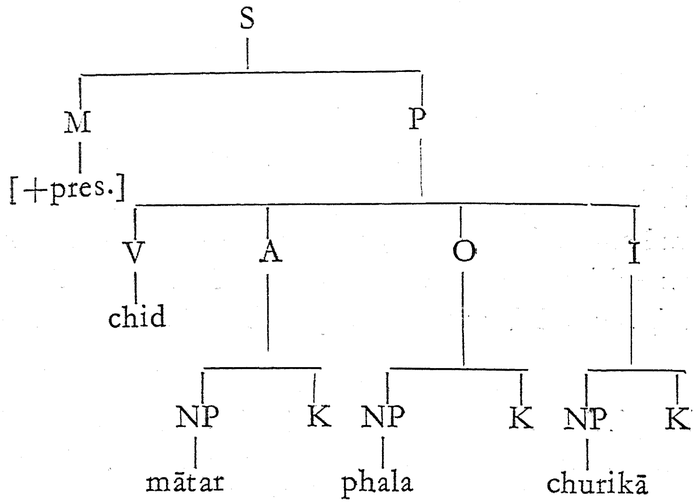
9. mātrā — churikayā — phalam — chidyate
A i — I i — O nom
by mother — with knife — fruit — is cut
(fruit is cut with a knife by the mother)

10.* mātrā - churikā - phalam - chinatti/chidyate
A i — I nom — O acc/nom
by mother - knife - fruit - cuts/is cut

Sentences 8, 9 have the underlying structure as in figure III.

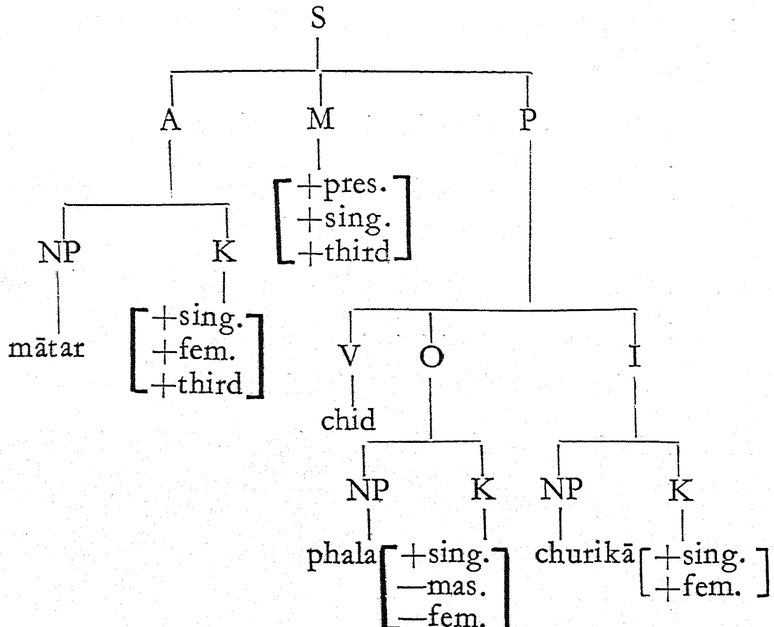
67. For details see II. I. I.

Figure III



The subjectivalisation-rule applies and selects A for agreement with the V, the result is as in figure IV.

Figure IV



The affix-substitution rule substitutes the features with affixes, as in figure V, and the final form is as in figure V.

Figure V

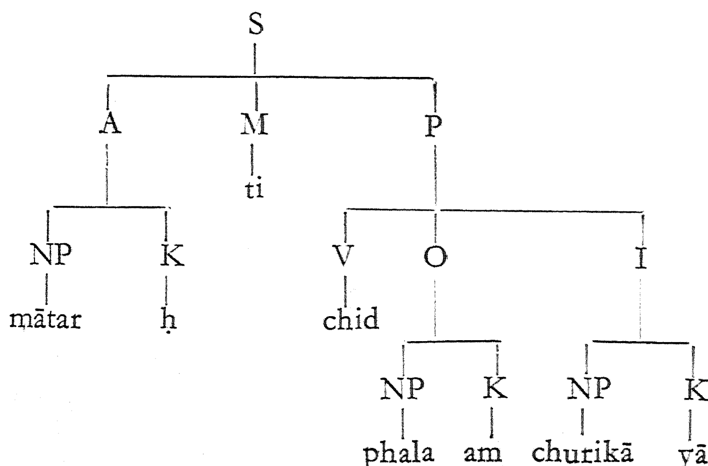
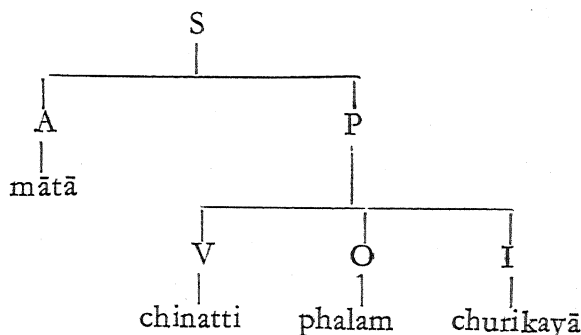


Figure VI

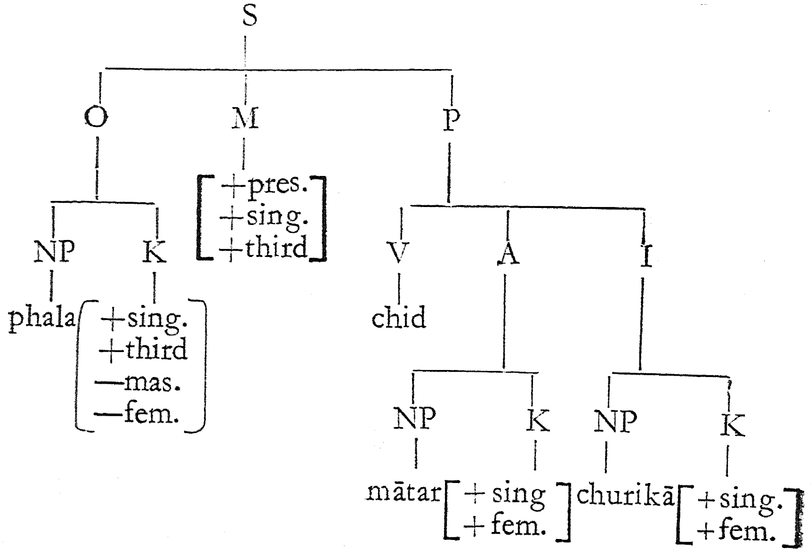


Alternatively, if A is not selected for subjectivalisation at the stage of figure III, the process of passivisation[68] applies. The result is as represented in figure VII (from figure I).

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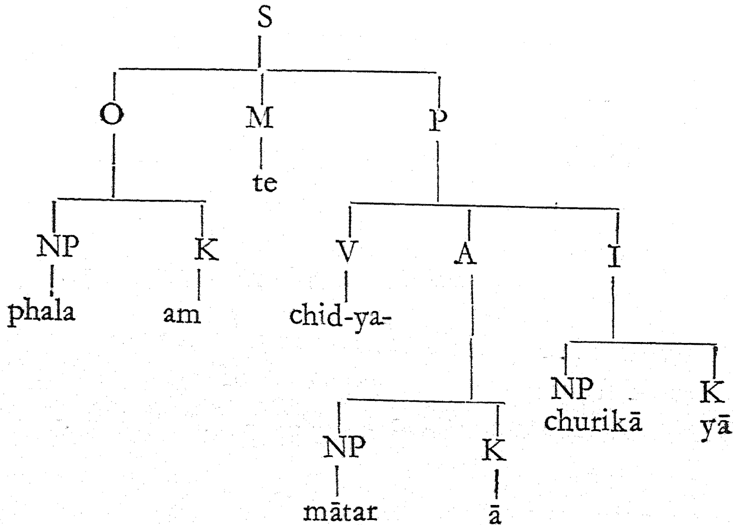
68. For details see II. 1. 1. and II. 2. 1. 2.

Figure VII



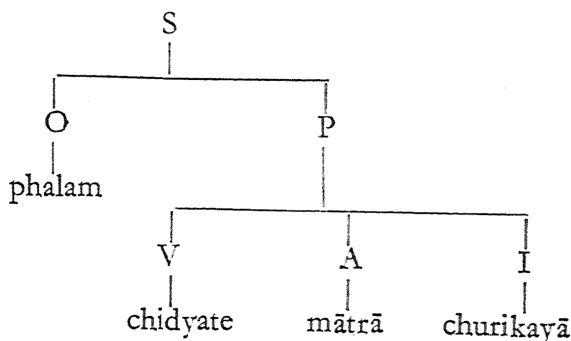
The affix-substitution rule applies, and the result is as in figure VIII.

Figure VIII



The final form is as given in figure IX.

Figure IX



It may be noted that a sentence like 11, with no A in its case-frame, is suspect.

11.* churikā	—	phalam	—	chinatti
I		O		
knife	—	fruit	—	cuts

II. 3. 2. 1. In this sub-section certain syntactic peculiarities of I are considered.

Consider a sentence like 12 in which I is the only case-category present.

12. churikā	—	(svayameva)	—	chinatti
I nom				
knife	—	by itself	—	cuts

(the knife cuts by itself)

In constructions like 12, the I conveys the performance of the action with ease or without effort.[69] The subjectivalisation-rule which has selected I for agreement with the V in 12, is optional. If the rule does not apply, sentence 12′ is the alternative form.

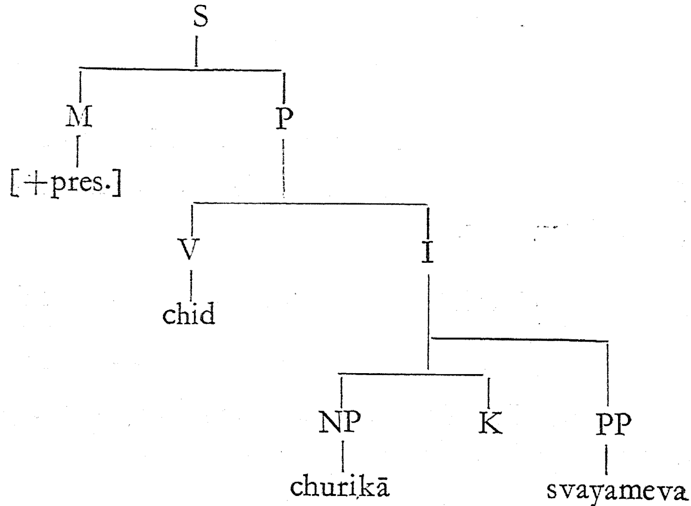
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69. Also see II. 2. 1. 2 (sentences 10, 13).

12′. churikayā — (svayameva) — chidyate
I i
by knife — (by itself) — is cut
((it) is cut by the knife by itself)

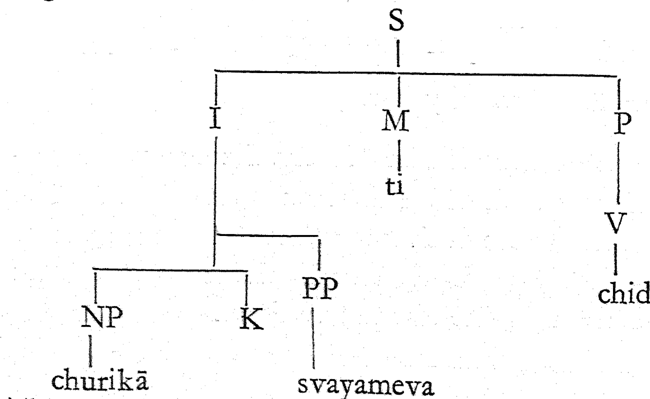
Sentences 12, 12′ have the underlying-structure as in figure X.

Figure X



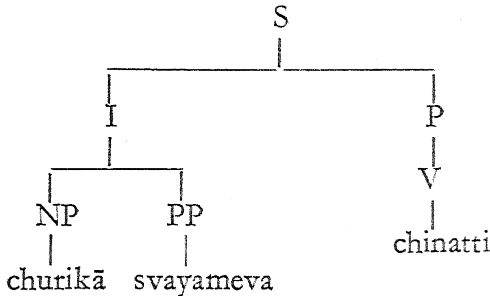
The subjectivalisatin-rule applies, and the affix-substitution rule replaces the features with affixes, and the result is as represented in figure XI (omitting intervening details).

Figure XI



The final form is as represented in figure XII.

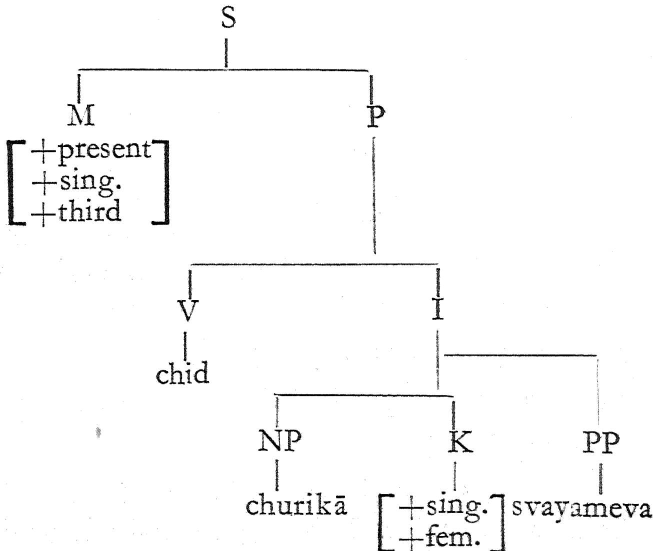
Figure XII



A PP-deletion rule deletes 'svayameva' optionally, and we obtain sentence 12.

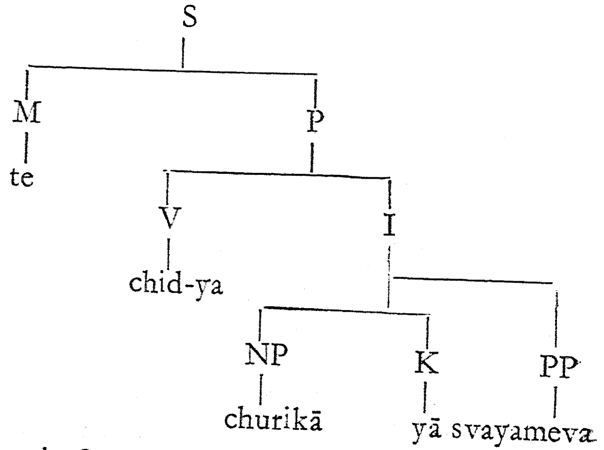
Alternatively, if the subjectivalisation - rule does not apply, the process of passivisation without subjectivalisation operates, and the result is as in figure XIII (from figure X).

Figure XIII



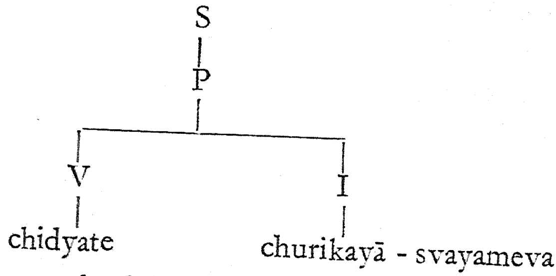
The affix-substitution rule replaces the features with affixes, and the result is as in figure XIV.

Figure XIV



The final form is as in figure XV.

Figure XV



The PP-deletion rule deletes 'svayameva' optionally and we obtain sentence 12′.

II. 3. 2. 2. Consider, next, sets of sentences in which the process of passivisation, in relation to I, operates in various ways.

As mentioned earlier (II.I), if there is R/O/F in a case-frame, and the subjectivalisation-rule does not operate, the process of passivisation with the subjectivalisation of R/O/F takes place. But, if there is an I in the case-frame (with or without O), it is, generally, not subject

to the process of passivisation with subjectivalisation (as is evident from sentences 13′, 13″). However, in sentence 14″, the I is optionally selected for subjectivalisation with the process of passivisation; sentence 14′ shows the ususal syntactic behaviour of I, i. e. its non-subjectivalisation with the process of passivisation. In sentence 15′, still another peculiarity of I is indicated, wherein the I co-occurs with an O. The process of passivisation operates, but it is I, not O (cf. II. 2. 1. 2.) which is subjectivalised optionally (sentences 15′, 15″). This characteristic of I (sets B, C below), as mentioned above, is due to its occurrence in the case-frame of a verb like 'dīvyati'.

However, if a pre-verb like 'prati' is attached to 'dīvyati', the process of passivisation does not select the I for subjectivalisation, rather it selects O optionally for subjectivalisation (sentences 16′, 16″).

In set A, the process of passivisation does not select I for subjectivalisation (sentence 13″ is unacceptable), even if a subjectivalisation-rule does not select A for agreement with the V (sentences 13, 13′).

In sets B,C the verb 'dīvyati' has the case-frames [A, I-], [A, I, O—] respectively. In both these case-frames the process of passivisation selects I (not O) optionally for agreement with the V (sentences 14″, 15′), in case the subjectivalisation-rule has not selected A.

In set D, the verb 'pratidīvayti' has the case-frame [A, I, O—]. The process of passivisation selects O (and not I) for agreement with the V (sentence 16′) in case subjectivalisation-rule does not select A.[70]

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70. Thus, we need ad hoc features on some verbs (as well as a specification of their case-frames), if we are going to predict correctly the possibilities of passivisation.

A.

13. bālakaḥ — gendukena — khelati
A nom I i
boy — with ball — plays
(the boy plays with a ball)

13′. bālakena — gendukena — khelyate
A i I i
by boy — with ball — is played
((it) is played with ball by the boy)

13″.* bālakena — gendukaḥ — khelyate
A i I nom
by boy — ball — is played.

B.

14. dyūtakaraḥ— { akṣān acc / I akṣaiḥ i }[71]— dīvyati
A nom
gambler — dice/with dice — gambles
(the gambler gambles with dice)

14′. dyūtakareṇa — akṣaiḥ — dīvyate
A i I i
by gambler with dice — is gambled.

14″. dyūtakareṇa — akṣāḥ — dīvyante
A i I nom
by gambler — dice — are gambled.

both=((it) is gambled with dice by the gambler)

C.

15. dyūtakaraḥ - { akṣān acc / I akṣaiḥ i } - śatasya[72] — dīvyati
A nom O g
gambler - dice/with dice - of hundred - gamble

---

71. A morphophonemic rule accounts for inflexional variation (acc/i) in the context of the verb 'dīvyati'.

72. A morphophonemic rule accounts for the genitive inflexional realisation of O.

(the gambler gambles hundred (pieces of money) with dice

15′. dyūtakareṇa — akṣaḥ — śatasya — dīvyante
A i I nom O g
by gambler - dice - of hundred - are gambled
(hundred (pieces of money) is gambled with dice by the gambler)

15″. dyūtakareṇa — akṣaiḥ — śatasya — dīvyate
A i I i O g
by gambler-with dice-of hundred-is gambled
(hundred (pieces of money) is gambled with dice by the gambler)

D.

16. dyūtakaraḥ - akṣaiḥ - {śatam[73] acc / śatasya g} O -pratidīvyati
A nom I i
gambler - with dice - hundred/of hundred -gambles
(the gambler gambles hundred (pieces of money) with dice)

16′. dyūtakareṇa - akṣaiḥ - śatam - pratidīvyate
A i I i O nom
by gambler - with dice - hundred - is gambled
(hundred (pieces of money) is gambled with dice by the gambler)

16″. dyūtakareṇa - akṣaiḥ - śatasya - pratidīvyate.
A i I i O g
by gambler-with dice-of hundred-is gambled
(hundred (pieces of money) is gambled with dice by the gambler)

---

73. A morphophonemic rule accounts for the optional genitive inflexion in the context of pre-verb + 'dīvyati'.

II. 3. 3. 1. Consider, next, a set of sentences containing NP's which refer to natural forces and are specified as I.

17. sa — vāyunā — dīpam — śamayati
A I O
he — with wind — lamp — extinguishes
(he extinguishes the lamp with wind)

18. vaijñānikaḥ — varṣābhiḥ — śasyam — nāśayati
A I O
scientist — with rains — crop — destroys
(the scientist destroys the crop with rains)

19. vāyuḥ — dīpam — śamayati
I O
wind — lamp — extinguishes
(the wind extinguishes the lamp)

20. varṣāḥ — śasyam — nāśayanti
I
rains — crop — destroy
(the rains destroy the crop)

21*. daṇḍaḥ — chātram — śamayati
I R
stick — student — quietens

22*. astram — sainikam — nāśayati
I R
weapon — soldier — kills

23. guruḥ — daṇḍena — chātram — śamayati
A I R
teacher — with stick — student — quietens
(the teacher quietens the student with a stick)

24. sainikaḥ — astreṇa — śatrum — nāśayati
A nom I i R acc
soldier — with weapon — enemy — destroys
(the soldier destroys the enemy with a weapon)

It is apparent that the NP's 'vāyunā' and 'varṣābhiḥ' (specified as I in 17, 18) function like A in 19, 20 (cf. 'guruḥ' and 'sainikaḥ' specified as A in 23, 24). It may be noted that 'daṇḍena' and 'astreṇa' (specified as I in 23, 24) cannot function like A, as sentences 21, 22 are unacceptable.

It is, perhaps, proper to distinguish between 'vāyunā' and 'varṣābhiḥ' in 17, 18 from 'vāyuḥ' and 'varṣāḥ' in 19, 20. In 17, 18 the I's occur with A. The NP 'vāyunā' (with wind) may be either the servant's breath ('mukhasya vāyunā' : with the wind of the mouth) or the wind of a fan (vyajanasya-vāyunā). Similarly, a scientist may create artificial rain to destroy/produce crops, as in sentence 18. Now, the problem is : how to specify the NP's 'vāyuḥ' and 'varṣāḥ' in 19, 20 which are phenomena not subject to anybody's control (e. g. the 'vāyuḥ' in 19 could not be interpreted as the breath of someone). It has been suggested that there could be a case like 'Force'.[74] As Fillmore mentions, the proposed case Force can never occur in contrast with A/I.[75] One may suggest that the NP's referring to natural forces may be specified as either A or I. If the natural forces are specified as A, then, it will have to be a type of A that cannot occur with I. But, if they are I, then, this characteristic need not be specifically mentioned. Secondly, if they are I, their 'event-causing'[74] characteristic becomes automatically explicit. However, one may argue that they do not co-occur with A (as in 19, 20 : provided the natural forces specified as I in 17, 18 are considered distinct from those in 19, 20). But, even in such sentences (19, 20) one can conceive of some Agent after all. However, the problem of the occurrences of NP's referring

74. Huddleston, R., (1970), p. 504.
75. Fillmore, C. J., (1971), pp. 253-254.

to natural forces as A (in sentences like 19, 20) remains to be solved. It has been mentioned earlier (II. 3. 2. 1.) that there are constructions in which I functions like A i.e. the subjectivalisation-rule selects it for agreement with the V. Similarly, in the case of NP's indicating natural forces and specified as I, the subjectivalisation-rule may also apply.

II. 3. 3. 2. Now, consider a sentence like 25 in which one could argue that the case-frame is either [I_1, I_2—] or [A[76], I—].

25. agniḥ — tāpena — jalam — śoṣayati
I_1 I_2 O
fire — with heat — water — dries
(fire dries water with its heat)

However, the NP 'agniḥ' (in 25), need not be specified as I in 25. Sentence 25 is derived from the structure underlying sentence 26, as the relation between 'tāpena' (heat) and 'agniḥ' (fire) is an inalienable one.[77]

26. [agneḥ — tāpaḥ] — jalam — śoṣayati
I O g O
of fire — heat — water — dries
(the heat of fire dries water)

Thus, there would be no need to specify 'agniḥ' (in 25) as I, as case-categories are to be specified in their underlying structures.

Fillmore suggests that the NP's indicating natural phenomena, in constructions specified as I, may be derived from superordinate structures.[78] There appears to be no justification for accepting this suggestion which involves treating such NP's at a level different from those NP's which do not refer to natural phenomena, and

76. In case one argues that the NP's indicating natural forces are A.
77. See IV, 3. 2. 1. 1. 5.
78. Fillmore, C. J., (1971), p. 254.

are assigned the case-category I. Fillmore himself has not amplified or exemplified his suggestion. Moreover, the postulation of the case-category I in the case of NP's referring to natural forces, as in sentences 17-26, does not violate the principle of 'one-instance-[of one case-category] bsk-perclause'.

II. 3. 4. Consider, next, sentences which contain NP's expressing emotive states.

27. sevakaḥ bhayena/bhayāt — kampate
A I i ab
servant —with fear/from fear — trembles
(the servant trembles with fear)

28. bālā — śokena/śokāt — roditi
A I i ab
girl — with grief/from grief — weeps
(the girl weeps out of grief)

29. mātā - krodhena/krodhāt — putram - tāḍayati
A I i ab R
mother - with anger/from anger - son — beats
(the mother beats her son out of anger)

30. pitā - snehena / snehāt - putram - āhvayati
A I i ab R
father - with affection/from affection - son- calls;
(the father calls his son with affection)

31. mātā-krodhena/krodhāt-daṇḍena-putram-tāḍayati
A I i I ab I i
mother-with anger/from anger-with stick-son-beats
(the mother beats her son with a stick, out of anger)

In sentence 31, there appear to be two occurrences of I. Sentences like 31, appear to be a strong argument against postulating the principle of one occurrence of one case-category in a simple sentence. Three possibilities suggest themselves : (i) the first relates to the

postulation of a new case-category for the NP's which express emotive states, (ii) the second is the acceptance that the NP's expressing emotive states and specified as I may co-occur with another I; (iii) the third is deriving these NP's from superordinate structures.

Of these, (i) the first would lead to the multiplication of case-categories, thus eventually making their postulation trivial, (ii) the second makes the 'one-instance-per-clause-principle' untenable. The third possibility suggests itself in view of sentences like 27′, 28′.

27′. bhayam — sevakam — kampayati
PR A
fear — servant — makes tremble
(fear makes the servant tremble)

28′. śokaḥ — bālām — rodayati
PR A
grief — girl makes weep
(grief makes the girl weep).

However, sentences 29′-31′ appear to be suspects.

?29′. krodhaḥ - mātrā — putram - tāḍayati
PR A R
anger — by mother — son — makes - beat
(anger makes the mother beat her son)

?30′. snehaḥ — pitrā – putram — āhvayati
PR A R
affection — by father — son — makes call
(affection makes the father call his son)

?31′. krodhaḥ - mātrā — daṇḍena—putram—tāḍayati
PR A I R
anger - by-mother - with stick - son - makes beat
(anger makes the mother beat her son with a stick)

Sentences like 27′, 28′ support the derivation of the NP's indicating emotive states from superordinate

structures. But, sentences like 29′-31′ appear to go against this position.

II. 3. 5. In this subsection, NP's with i-inflexion which may be derived from underlying complex structures are considered. The problem of intentional/non-intentional interpretation of sentences containing I, is also discussed.

II. 3. 5. 1. Consider sentences 32-33 which appear superficially to be simple, and may be derived from the structures underlying 32′-32″, 33′-33″ respectively.

32. pathikaḥ — aśvena — yāti
A nom i
traveller — with horse — goes
(the traveller goes on / with a horse)

32′. pathikaḥ - aśvam - āruhya[79] - yāti
A nom R acc V nom
traveller - horse - having ridden - goes
(riding a horse, the traveller goes)

32″. pathikaḥ — aśvaḥ — ca — yātaḥ[80]
A A
traveller — horse — and — go
(the traveller and the horse go)

33. sevakaḥ — dīpikayā — yāti
A nom i
servant — with lamp — goes
(the servant goes with a lamp)

33′. sevakaḥ - dīpikām - ādāya - yāti
A nom O acc V nom
servant - lamp - having taken - goes
(having taken a lamp, the servant goes)

---

79. The process of nominalisation is discussed in III. 5 and IV. 3.2.
80. For the details see Kumar, *Coordination in Sanskrit* (forthcoming).

33″. sevakaḥ — [dīpikāyāḥ — prakāśe] — yāti
A nom L O g l
servant — of lamp — in light — goes
(the servant goes in the light of a lamp)

The NP's 'aśvena' in 32 and 'dīpikayā' in 33 cannot be specified as I. Unlike an I, the NP 'aśvena' is [+animate], and can function as an A (as in sentence 34 below). The NP 'dīpikayā' can be interpreted either as derived from a complex structure underlying sentence 33′ or as a complex structure as in sentence 33″. The verb 'yāti' does not allow the occurrence of 'dīpikayā' as an I (as defined in II.3). Compare sentences 35, 35′ which can be interpreted either as 33′ or 33″. Sentence 35 can allow the occurrence of an I, in addition to the occurrence of 'dīpikayā' as in sentence 35′. One may argue that in 35 (dīpikayā-khelati : with lamp-plays) 'dīpikayā' may be an I, but, in that case, it would be interpreted as a toy.

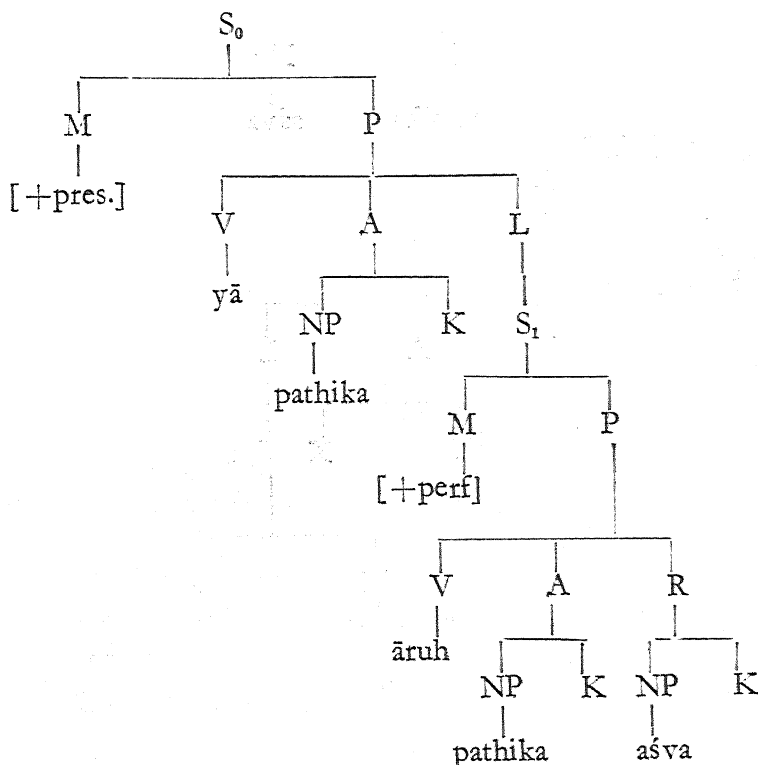
34. aśvaḥ — yāti
A
horse — goes

35. bālakaḥ — dīpikayā - {khelati : plays / likhati : writes / khādati : eats}
A nom i
boy — with lamp

35′. bālakaḥ - {
A nom
kalamena - dīpikayā - likhati
I i i
with pen - with lamp - writes
kalamena - dīpikayā - khelati
I i i
with pen - with lamp - plays
camasena - dīpikayā - khādati
I i i
with spoon - with lamp - eats
}

In sentences 32′, 33′ the items specified as Nom V[81] and the item 'prakāśe' in 33″ are deleted optionally by later rules, and the NP's 'dīpikām' and 'dīpikāyāḥ' (in sentences 33′, 33″ respectively) and 'aśvam' (in sentence 32′) realise as 'dīpikayā' and 'aśvena' respectively (i. e. with i-inflexion). Sentences 32, 33 have the underlying structure as represented in figures XVI-XVII and XVIII-XIX respectively.

Figure XVI



81. The process of Nominalisation allows deletion of V Nom by a later rule.

Figure XVII

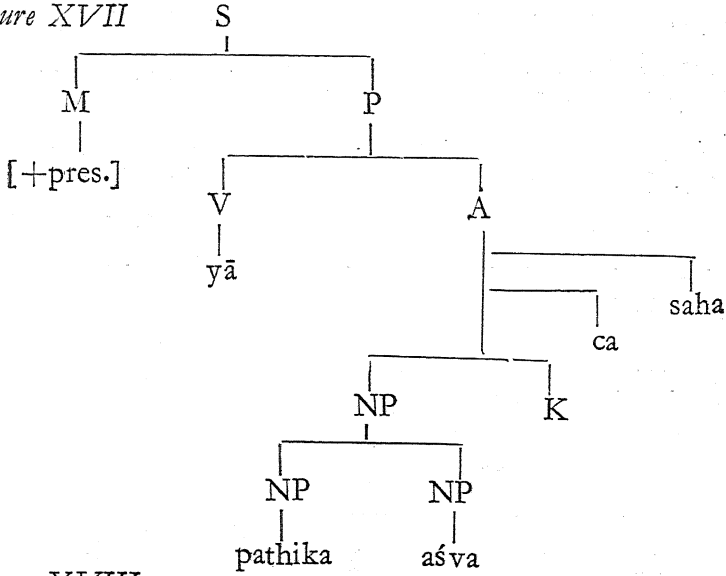


Figure XVIII

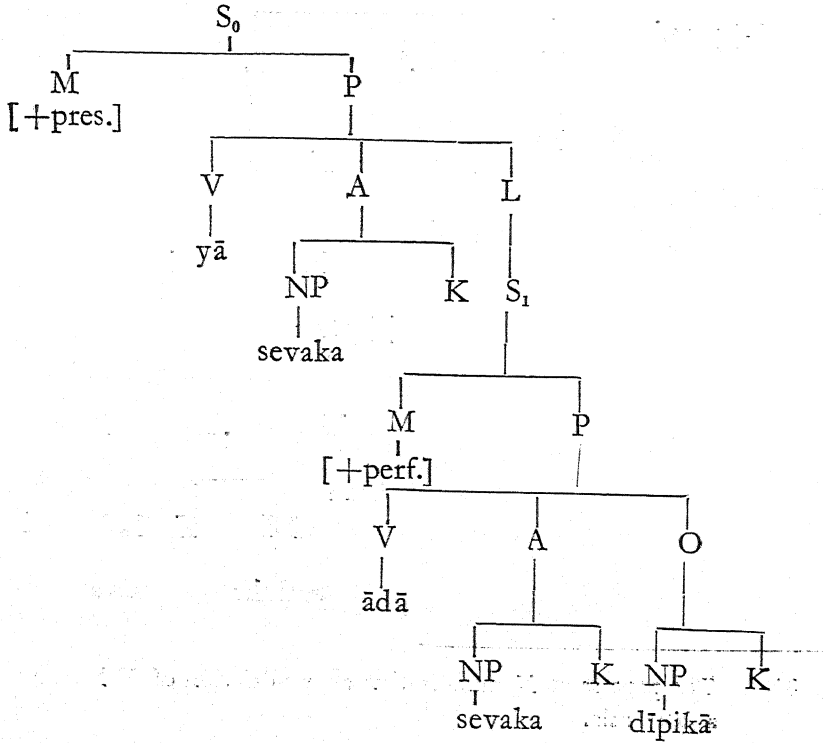
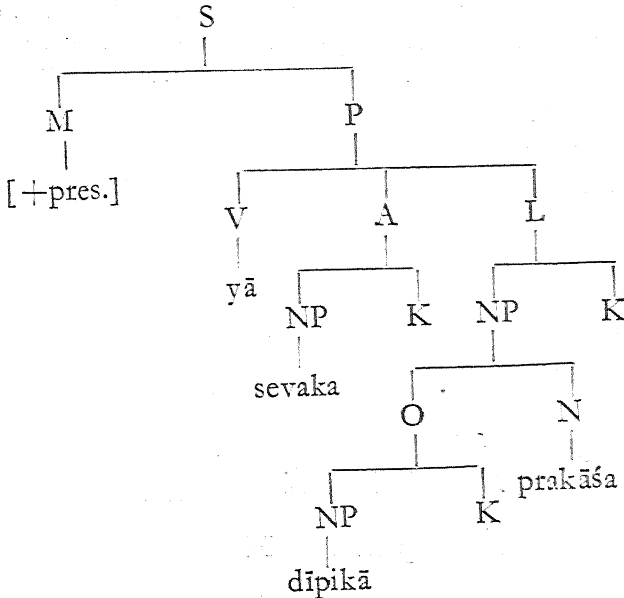


Figure XIX



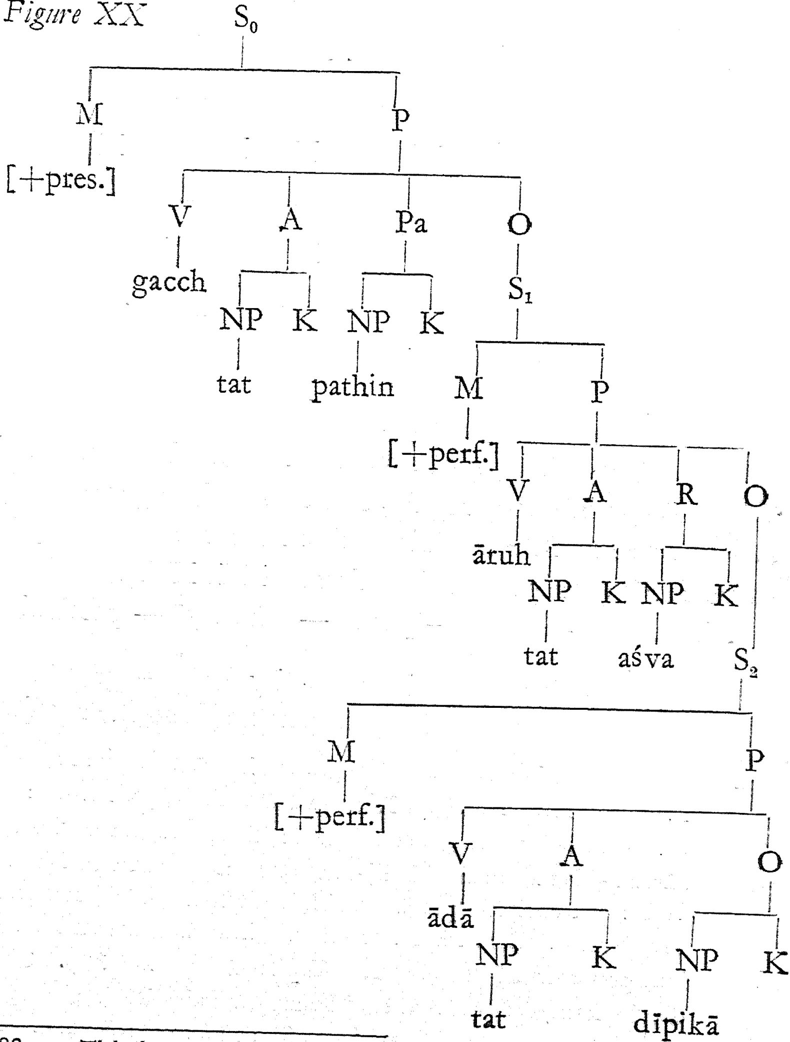
Thus, in a sentence like 36 the NP's 'aśvena', 'dīpikayā' (as in sentences 32, 33) cannot be specified as I. A sentence like 36[82] is derived from structures underlying sentence 36′ (as represented in figures XX, XXI).

36. sa — aśvena — pathā — dīpikayā — gacchati
A i i i
he – by horse – by road – by lamp – goes
(he goes with a lamp on a horse along the road).

82. Patañjali, *Vyākaraṇa Mahābhāṣya*, ed. M. Pandit Śivadatta D. Kudāla (1912), Bombay, Nirṇaya Sāgar Press, pp. 259-60 :
According to the commentator there are three 'karaṇa-kāraka'-(INSTRUMENTAL)-relations in a sentence like 36. It is not clear how 'pathā' can indicate 'karaṇa-kāraka'. Secondly, commentators have not taken into account ambiguous interpretation of 'aśvena' and 'dīpikayā (sentence 36′). Thirdly, if 'karaṇa' is defined as 'the most serviceable in the accomplishment of an act' (Roy, S., p. 36 : Pāṇini's rule I. 4. 42), it is unclear how three actants can be 'most serviceable' simultaneously in relation to one action. Cf. Singh, J.D., (1970), p. 29.

36′. sa — {aśvena saha / aśvam āruhya} — pathā — {dīpikām ādāya / dīpikāyāḥ prakāśe} — gacchati
A — Pa
he — {with a horse / riding a horse} — along road — {taking a lamp / in the light of a lamp} — goes

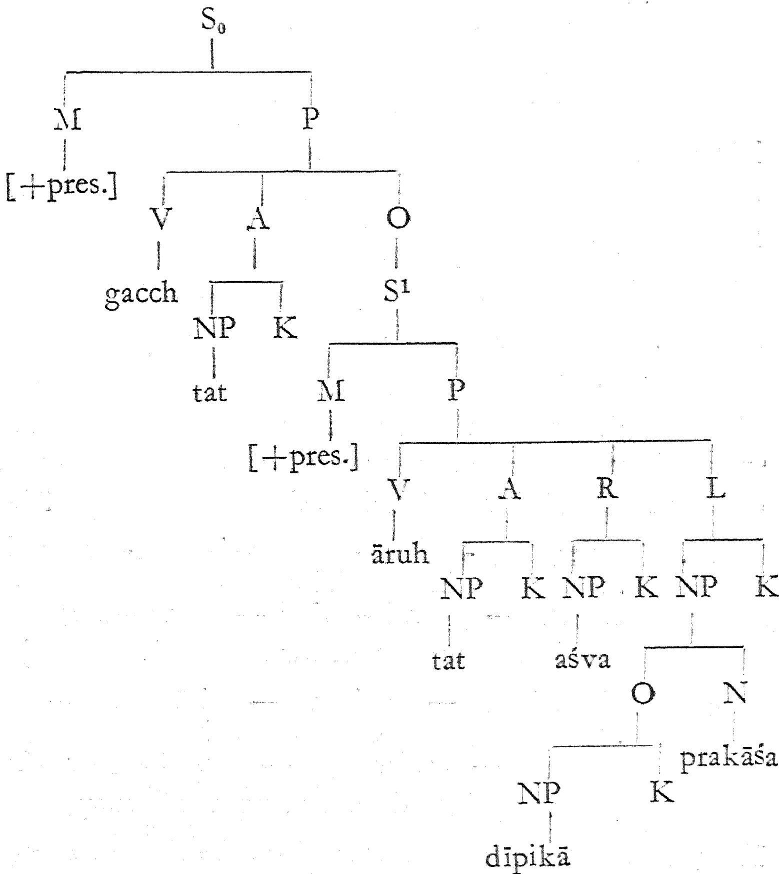
Figure XX



83. This interpretation is not represented in figures XX, XXII.

84. A later morphophonemic rule realises it as 'sa'.

Figure XXI



II. 3. 5. 2. Consider, next, sentences 37, 38, which may be considered to be derived from the same underlying structure.[85]

37. sā — churikayā — phalam — khaṇḍayati
A I O
she — with knife — fruit — cuts
(she cuts fruit with a knife)

85. Lakoff, G., (1968), pp. 4-29.

38. sā—phalam—khaṇḍayitum—churikām—prayuNkte
A O VNom O
she —fruit — to cut — knife — uses
(she uses a knife to cut fruit)

Lakoff, while advocating an identical underlying structure for sentences, like 37-38, refers to its justification in the form of the postulation of a significant grammatical generalisation on the basis of conditions of selection and co-occurrence, which now require to be stated only once in the description. Chomsky[86] has considered different examples to show that Lakoff's position is not tenable. In the first instance, Lakoff considers that a sentence with an instrumental adverbial phrase and a sentence containing a verb-form like 'prayuNkte' (uses) are synonymous. But, this claim appears doubtful in Sanskrit as in English. Consider sentences 39,40.

39. ākheṭakaḥ - paśum - hantum - bāṇam - prayuNkte
A R VNom O
hunter — animal—to kill —arrow—uses
(the hunter uses an arrow to kill the animal)

40. ākheṭakaḥ — paśum — bāṇena —hanti
A R I
hunter — animal — with arrow —kills
(the hunter kills the animal with an arrow)

Now, at least with one interpretation, the above sentences are not synonymous. In case the tense in sentences 39, 40 is interpreted as simultaneous with the point of reference (i. e. speaking), sentence 40 refers to the operation of killing, but sentence 39 refers to the operation prior to killing. Besides, sentences 39, 40 are not synonymous on another count also. Sentence 39 can have a continuation like 39′, but sentence 40 cannot be continued like 40′.

86. Chomsky, N., (1969), pp. 12-14, p. 43 (f.n. 16). Cf. Kooij, J. G., (1971), pp. 72-79.

39′. ākheṭakaḥ-paśum — hantum-bāṇam-prayuNkte
hunter — animal — to kill—arrow—uses
parantu — sa — palāyate
but — that (animal) — escapes
(the hunter uses the arrow to kill the animal, but that (animal) escapes)

40′.* ākheṭakaḥ — paśum — bāṇena — hanti—
hunter — animal — with arrow— kills—
parantu — sa — palāyate
but — that — escapes
(the hunter kills the animal with an arrow, but that (animal) escapes).

Thus, Lakoff's proposition that sentences 39, 40 have the same underlying structure and are synonymous, does not appear to be convincing. Besides, sentences 41 and 42 show that if Lakoff's suggestion is accepted, then, the I in 41, 42 would come from another structure (superordinate or embedded) but the L would not. There appears to be no justification, except the paraphrase with 'use', for postulating this differentiation between the I and the L.

41. (i) mātā — kalamena — patre — likhati
A I L
mother — with pen — on paper — writes
(the mother writes on paper with a pen)

(ii) mātā - darvyā - pātre - dugdham - nidadhāti
A I L O
mother — with ladle - in pot milk - puts
(mother puts milk in a pot with a ladle)

42. (i) mātā - kalamam - patre - lekhitum - prayuNkte
A O L VNom
mother - pen - on paper - to write - uses
(the mother uses the pen for writing on paper)

(ii) mātā — darvīm — pātre — dogdham —
A O L O
mother — ladle — in pot — milk —
nidadhātum — prayuNkte
VNom uses
to put

(mother uses the ladle for putting milk in the pot)

If it is proposed that the L in 41, 42 also comes then we will have sentence 43(i) and 43(ii) in place of sentence 42(i) and (ii), and sentence 41 and 43 would not have similar interpretation. Consequently, Lakoff's position would be weakened further.

43. (i) mātā - kalamam - patram - ca - lekhitum -
O O
mother - pen - paper - and - to write -
prayuNkte
uses

(mother uses a pen and paper for writing)

(ii) mātā - darvīm - pātram - ca - dugdham -
O O O
mother - ladle - pot - and - milk -
nidadhātum - prayuNkte
to-put uses

(she uses ladle and pot for putting milk)

Thus, it appears difficult to accept Lakoff's position in relation to the case-category I.

II. 3. 5. 3. Now, it has been argued that the instrument of an argument may be used with an intentional or a non-intentional interpretation. An argument assigned the case-category I(nstrumental may have 'purposive' or 'accidental' sense.[87] A sentence like 44 is ambiguous. The purpose-sense is indicated if sentence 44 is continued like 44′. The accidental sense is expressed if 44 is continued as 44″.

87. Lakoff, G., (1968).

44. sevakaḥ — vetreṇa — caṣakam — abhanak
I O
servant — with stick — cup — broke
(the servant broke the cup with a stick)

44′. sevakaḥ - anāyāsena - vetreṇa - caṣakam - abhanak
servant - with effortlessness - with stick - cup - broke
(the servant broke the cup easily with a stick)

44″. sevakaḥ-anavadhānena-vetreṇa-caṣakam-abhanak
servant - with carelessness - with stick - pot-broke
(the servant broke the glass with a stick carelessly)

Lakoff gives a number of 'grammatical contexts'[88] where the 'accidental' interpretation of a sentence is ruled out. He, then, proposes that 'if there are grammatical contexts in which one sense but not the other can appear, then it must be assumed that, two different deep-structures are involved.'[89] However, he does not propose an underlying structure for the accidental interpretation.[90] But, the question remains whether the difference between the accidental and purposive interpretation of a sentence like 44 is indeed a reflection of two underlying structures. Consider sentences 45, 46. In sentence 45, the hand is cut by a knife whether it happened accidentally or was done purposely. Thus, the instrumentality of knife is not affected by this ambiguity. Besides, the ambiguity remains even in sentence 45 wherein no overt I occurs.

45. bālakaḥ — churikayā — hastam — alunāt
I O
boy — with knife — hand — cut
(the boy cut his hand with a knife)

88. Lakoff, G., (1968), pp. 8-9 : he gives eight such contexts.
89. Ibid.
90. Lakoff, G., (1968), p. 8. 'I am interested in this paper only in the purposive instrumental sense, not in the accidental sense.'

46. bālakaḥ — hastam — alunāt
O
boy — hand — cut
(the boy cut his hand)

Thus, the intentional/non-intentional or purposive/accidental interpretation of I seems irrelevant to the definition of I.

II. 4. In this section the case-categories L(ocative), So(urce), GO(al), Ext(ent) and Pa(th with spatio-temporal orientation[91] are discussed. The discussion starts with a reference to the Sanskrit grammarians, and is followed by that of the views of contemporary linguists.

II. 4. 1. The Sanskrit grammarians in their discussion of 'kāraka'—relations, have referred to what can be comprehended under L and SO.[92] They have not discussed 'time' (kāla) as a 'kāraka'—relations[93] separately. But, they have

91. The case-categories So, Go have a wider scope which is discussed in II. 4. 5. and II. 4. 6. respectively.

92. Roy, S., (192o), pp. 57, 92 : Pāṇini's rules : 'dhruvam-apāye - apādānam' (I. 4. 24), 'ādhāraḥ - adhikaraṇam' (I. 4. 45). Cf. Vasu, S. C., (1891a), pp. 177, 184 : Pāṇini's rule I. 4. 24 : 'a noun whose relation to an action is that of a [relatively] fixed point from which departure takes place is called 'apādāna', 'Pāṇini's rule I. 4. 45 : 'that which is related to the action as the site where the action is performed by reason of the agent or the object being in that place is called 'adhikaraṇa' or location.'

93. Cf. Subramania Iyer, K. A., (1969), pp. 322-24, the section on 'the abode (adhikaraṇa)'. However, in Pāṇini's rule II. 3. 64 'kṛtvorthaprayoge - kāle - adhikaraṇe' the word 'kāle' (temporal) modifies 'adhikaraṇe'. But, it is not a rule treating temporal location in general. One may argue that Pāṇini's rule like I. 4. 45 (f. n. 91) includes temporal location as well. But the commentators do not give any instance, under that rule, with temporal location. Cf. Roy, S., (1920) ; Vasu, S. C., (1891a), Bhaṭṭojidīkṣita.

definitely taken note of spatio-temporal distinction, and, in some of the rules, the terms denoting time and space, occur together.[94]

II. 4. 2. The case-categories mentioned above have been referred to as the 'local' functions of the category of case,[95] which include temporal as well as spatial distinctions.[95] This is the reason for their being considered as 'concrete' case-distinctions as opposed to others which are called 'grammatical' or 'abstract'.[96] Some linguists have recognised a general distinction of locative vs. directional as 'a particular manifestation of a more general distinction between static and dynamic'[97] (i. e. in/at vs. to/form).

94. Roy, S., (1920) : Vārittika on Pāṇini's rule I. 4. 31 : 'yataḥ ca - adhvakālanirmāṇam - tatra - pañcamī, tadyuktāt - adhvanaḥ - prathamāsaptamyau, - kālāt - saptamī - ca - vācyā' : the starting point in the measurement of the length of time and space takes 'pañcamī', the space measured takes 'prathamā' and 'saptamī', and the time takes 'pañcamī' (pp. 62-63). Pāṇini's rule II. 3. 5. : 'kālādhvanoḥ - atyantasaṃyoge - dvitīyā' : time and stage of journey take 'dvitīyā' when pervasion [i.e. continuity or extension bsk] is implied' (pp. 35). Pāṇinis rule II. 3. 6. 'apavarge - tṛtīyā' : if 'attainment of the end...has to be indicated, time and stage of journey take 'tṛtīyā' when there is pervasion' [i.e. continuity or extension bsk] as well (pp. 38-39). Cf. Subrahmanya Sastri, P. S., (1957a), pp. 116-117 : Vārttika on Pāṇini's rule I. 4. 51 : 'kālabhāvādhvagantavyāḥ - karmasaṃjñā - hyakarmaṇām' : time, duration and the distance to be travelled take 'karmasaṃjñā' with reference to 'akarmakadhātu' : time - 'māsam - āste / svapiti' [he stays / sleeps for a month bsk], duration : 'godoham - āste / svapiti' (he stays / sleeps during the time of milking), 'krośam - āste / svapiti' : (he stays / sleeps for two miles). Also see rule II. 3. 7. : 'saptamī - pañcamyau - kārakamadhye'.

95. Lyons, J., (1968), p. 298.

96. Lyons, J., (1968), pp. 295, 299.

97. Lyons, J., (1968), 300. Cf. Bennett, D. C., (1970), pp. 28ff.

This distinction will not be considered independently with reference to the above-mentioned case-categories in this analysis. It is indicated (f. n. 91) that the case-categories SO, GO are not related to the spatio-temporal axes only (see II. 4. 4. 5. and II. 4. 6.). There have also been attempts to interpret the case-categories in terms of a localistic approach.[98] Fillmore [99] refers to one case-category locative, and assigns the distinctions like the one between 'in London/to London, to associated verbs. This treatment can, at least, be considered sketchy. However, in a recent paper[100], he has discussed this case-category afresh and has postulated in its place the case-categories Place, Time, Source and Goal. Following Bennett[101], he suggests the case-category Pa(th) also.[102] Lehiste has mentioned a case-category like Terminative, [103] which corresponds to Ext(ent)[104] proposed here, as the latter term seems more appropriate.

II. 4. 3. The distinction between case-categories Place/Location and Time is not retained, henceforth. There is more than one reason for this. In the first instance, if the distinction is to be maintained uniformly, then this would apply to SO, GO and Ext as well, and, thus, the number of case-categories would multiply, as in sentences 1-4 the case-categories would have to be specified as place SO/GO,

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98. Anderson, J. M., (1971).
99. Fillmore, C. J., (1968a), pp. 25-26.
100. Fillmore, C. J., (1971)' pp. 251, 258-61 : he mentions 'Place, Time' (p. 251) and then changes over to 'Location, Time' (p. 258).
101. Bennett, D. C. (1970), p. 2; also in *Semiotica* V-1 (1972), p.59.
102. Fillmore, C. J., (1971), p. 259.
103. Lehiste, I., (1969), p. 334.
104. Bennett also suggests Ext.

time SO/GO, place Ext, time Ext, without any consequent advantage in description. There appears to be no significant syntactic evidence to justify this distinction despite the obligatory occurrence of spatial/temporal Locative or Ext with particular verbs. Because, such verbs allow temporal/spatial Locative also in their case-frames, in addition to obligatory spatial/temporal Locative or Ext, as in sentences 5, 6.

1. yātrikaḥ-madhyāhnāt-[sāyam yāvat] - abhramat
A SO GO
traveller - from midday - evening till - wandered
(the traveller wandered from midday till evening)
2. mantrī - chapra nagarāt - patna nagaram - ayāt
A SO GO
minister - from city of Chapra - to city of Patna went
(from Chapra, the minister went to Patna)
3. sohanaḥ — dinam — apaṭhat
A Ext
s. — day-long — read
(s. read day-long)
4. Sa — krośam — ayāt
A Ext
he — two miles — went
(he went for two miles)
5. sa - sāikilayānam - aNgane - (sāyam) - nyasyatī
A O L L
he -bicycle - in yard - (in evening) - keeps
(he keeps the bicycle in the yard (in the evening))
6. (nagare) — melā — māsam — sthāsyati
L O Ext
(in town) — fair — month-long — will stay
(the fair will last for one month (in the town))

Secondly, Fillmore's acceptance of this distinction between

place and time is motivated by his 'one-instance [of one case-category] - per - clause principle.'[105] In a sentence like 7 there could be occurrences of both place and time.

7. chātraḥ — sandhyāyām — vidyālaye — āste
D L(time) L(place)
student — in evening — in school — stays
(the student stays in the school in the evening)

However, this could be considered as an idiosyncratic aspect of the case-categories discussed in this sub-section (II.4). There are some other characteristics of L(place in Fillmore s sense) and Pa(th) which are peculiar to them (see II. 4, II. 4. 8), but on the basis of these no further specification of case-categories has been proposed. Thus, it does not appear unreasonable to ignore this occurrence of both place and time (which is specific to L, SO, GO) in a simple sentence.[106]

II. 4. 4. The case-category L covers both spatial and temporal references. In a sentence like 7 above, thus, there is more than one occurrence of L. Another characteristic of L lies in the fact that it may involve multiple self-embedding.[107] Thus, in a sentence like 8, the three occurrences of L are to be considered as unitary, one within the other, and the NP 'pādapasya-nīchaiḥ'[108] (of tree-below) indicates

105. Fillmore, C. J., (1971), p. 248.

106. It may be argued that as no verb can have both L (time) and L(space) as obligatory parts of its case-frames, one or the other may be considered as part of a superordinate structure. But, this would involve treatment of complex structures and as such is not incorporated in this analysis.

107. Stratton, C. R., (1971), p. 226.

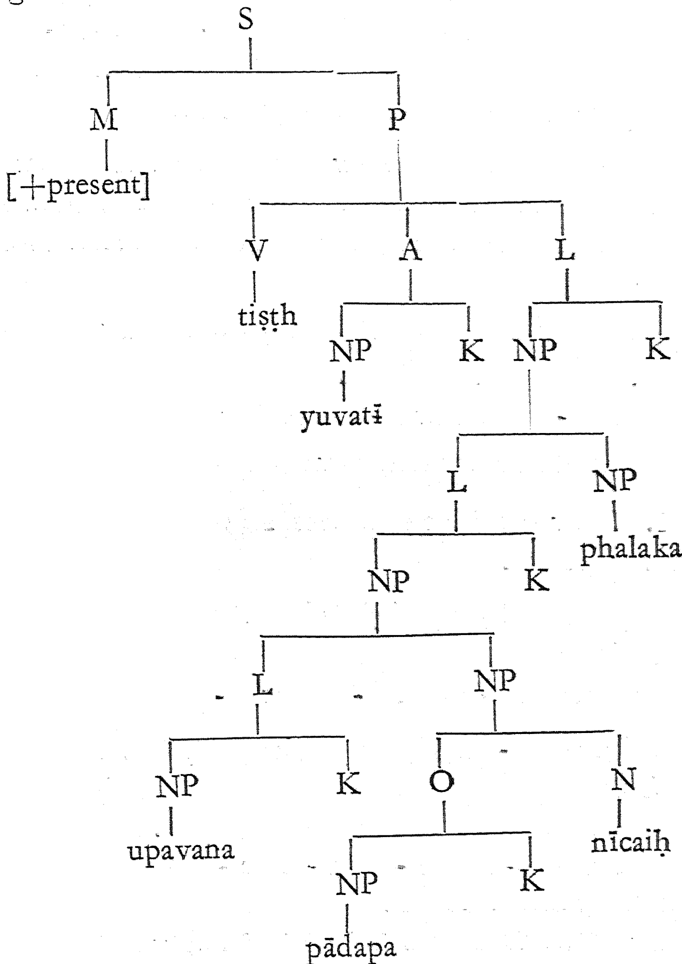
108. IV. 3. 2. 1. 1. 7. This NP is a complex-structure involving inalienable relationship, the schema is NP $\rightarrow$ N (O), the NP being dominated by L in this case.

the inalienable relation between the tree and the direction 'nīcaiḥ' (below).

8. yuvatī - upavane - [pādapasya nīcaiḥ] - phalake -
A L L g L tiṣṭhati
young lady-in garden-of tree beneath-on bench-sits
(the young lady sits on a bench under the tree in the garden)

Sentence 8 has the underlying structure given in figure I.

Figure I



Now, if the three occurrences of L in sentence 8 above, are not interpreted as one embedded within the other, the interpretation of the sentence would be unacceptable.

Similarly, in a sentence like 9 all the three occurrences of temporal reference function as one contained within the other.

9. adya - rātrau - daśavādanasamaye - kolāhalaḥ - ajāyata
L L L O
to day - at night - at ten hour time - noise - became produced
(there was noise at ten at night today)

But, in a sentence like 10, the two occurrences of temporal references must be interpreted as instances of coordination. The occurrence of 'ca' in sentence 10 indicates coordination.[109]

10. vṛddhaḥ - pratyūṣe - sandhyāyām - ca - bhramati
A L L
old - in dawn - in evening - and - walks
(the old walks at the dawn and in the evening)

II. 4. 4. 1. Now consider sentences 11(a-c) in which L is a complex structure.

11. (a) [gehāt-dakṣiṇā/dakṣiṇāhi/samīpam] -gauḥ-carati
L O ab A
from house - south - near - cow - grazes

(b) [gehasya - daṣkiṇena / dakṣiṇataḥ / samīpam] - gauḥ - carati
L O g A
of house - south - near - cow - grazes

109. Kumar, B. S., *Coordination in Sanskrit* (forthcoming).

(c) [geham -dakṣiṇena/-samayā/nikaṣā]-
L O acc to house - south - near - near -
gauḥ - carati
cow - grazes
three=(the cow grazes near/south of the house)

In the sentences 11a-c, like sentence 8 above, L has a complex structure, and is to be interpreted in accordance with a rule-schema NP→ N(O) (f. n. 108), where the relation between the N and O is inalienable. The O is realised differently at the inflexional level (it is not genitive in all the three sentences 11a-c) which is partially a matter of free variation and is partially conditioned by the features on the lexical entry of the item concerned.[110]

Consider a sentence like 12 in which L may have an underlying structure following the schema NP→ N(D)[111], as in sentence 13′.

12. [suśīlaḥ - chātraḥ] - gurau - vasati
A L l
well - behaved - student - in teacher - lives
(a well-behaved student lives near/obeys (his) teacher)

13′. [suśīlaḥ - chātraḥ] - [guroḥ - samīpam] - vasati
A L D g
well-behaved - student - of teacher - near - lives
(a well-behaved student lives near (his) teacher)

II. 4. 4. 2. Consider, next, sentences 14, 14′, 15, 15′ which have different surface-realisation of the L, and which is not a complex-structure like the one in 12, 13.

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110. In sentences 11a-c, the lexical item 'dakṣiṇa' is distinguished by the elements 'ā/āhi' (in 12a), 'ena/taḥ' (in 11 b), and 'ena' (in 12c), which condition the occurrence of the different inflexions. In the case of 'samīpam', 'samayā', 'nikaṣā', the lexical items themselves condition the inflexional variation.

111. The schema NP → N(D) accounts for 'guroḥ - samīpam' (in 13') (teacher's proximity), wherein the NP is dominated by L. Cf. IV. 3. 2. 1. 1. 7.

14. bālā - śayane - tiṣṭhati / śete / āste
A/D nom L l
girl - in bed - sits / sleeps / stays

14′. bālā - śayanam - adhitiṣṭhati/adhiśete / adhyāste
A/D nom L acc
girl - in bed - sits / sleeps / stays
both= (the girl sits / sleeps / stays in bed)

15. rājñī — rājabhavane — vasati
A nom L l
queen — in palace — lives

15′. rājñī — rājabhavanam - {upa- / ā- / anu- / adhi-} vasati
A nom L acc
queen — in palace — lives
both = (the queen lives in the palace)

As mentioned above, it may be noted that the difference in inflexional realisation is conditioned both by the lexical items themselves and the features on the lexical entry of the item concerned. Thus, sentences like 14″ which contains a verb 'asyati' (places) (which is other than the verbs mentioned in sentence 14), with the pre-verb 'adhi' (as in sentence 14′ above), and 15″ which has a verb 'vasati' (as in 15 above) but with the pre-verbs 'ni' and 'prati' (other than those in sentence 15 above), do not show variation in surface-realisation of L. Sentences 14‴, 15‴ are unacceptable.

14″. mātā — bālakam — śayane — adhyasyati
A R L
(the mother places the boy in bed)

14‴.* mātā — bālakam — śayanam — adhyasyati
A R L acc
mother — boy — in bed — places

15″. rājñī — rājabhavane — {ni / prati} - vasati
A — L l
queen — in palace — lives
(the queen lives in the palace)

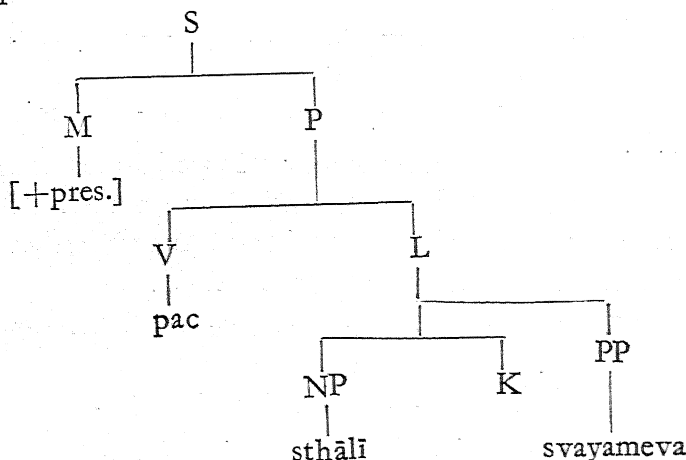
15‴. rājñī — rājabhavanam — {ni / prati} - vasati
A — L acc
queen — in palace — lives

II. 4. 4. 3. It has been mentioned earlier (II. 1. 1.) that the subjectivalisation-rule normally selects A/D for agreement with the V. But, consider a sentence like 16 wherein L, the only case-category in the frame, is selected for subjectivalisation.

16. sthālī — (svayameva) — pacati[112]
L nom
pot — (itself) — cooks
(the pot cooks by itself)

Sentence 16 has the underlying structure as in figure II.

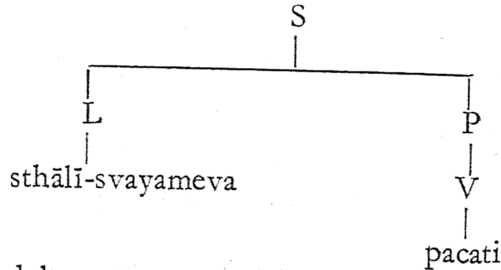
Figure II



112. The verb 'pacati' has also a case-frame like [A, O, L—] as exemplified by a sentence like
'sūdaḥ - sthālyām - bhaktam - pacati'
A L
cook - in pot - boiled rice - cooks

The process applied to sentences 10, 12, 16, 19 (in II. 2. 1. 2.) operates, and the final form (omitting intervening details) is as represented in figure III.

Figure III



A rule deletes 'svayameva' optionally.

It may be noted that in constructions like 16 above, if any other case-category co-occurs, L can never be selected for subjectivalisation (16′ below is unacceptable). A sentence like 16 conveys the sense of ease or effortlessness.

16′*.	sthālī	—	odanam	—	pacati
	L		O		
	pot	—	boiled rice	—	cooks

II. 4. 5. The case-category SO(urce) is considered as the 'starting point.'[113] of an action or process. The case-category SO may be assigned to entities which are animate or inanimate. Consider sentences 17-23.

17.	sā	—	gayānagarāt	—	ayāt
	A		SO ab		
	she	—	from city of gayā	—	went
	(she went from the city of gayā)				

113. Fillmore, C. J., (1971), p. 259 : his previous definition 'the place to which something is directed' (1969) p. (116) does not appear appropriate. In the first instance, 'place' makes it limited in its scope, and secondly...'to which something is directed' appears to refer to GO rather than to SO.

18. vihagaḥ — gulmāt — ḍayate
A SO ab
bird — from bush — flies
(a bird flies from the bush)

19. nadī — himālayāt — prabhavati
A SO ab
river — from Himalayas — appears
(the river rises in the Himalayas)

20. chātraḥ — guroḥ — bhāṣikīm - adhīte
A SO ab O acc
student — from teacher — linguistics — learns
(the student learns linguistics from the teacher)

21. rāmaḥ - kauśalyāyāḥ - ajāyata
D nom SO ab
r. - from k. - became born
(r. was born from k.)

21′. rāmaḥ - kauśalyāyām - ajāyata
D SO l
(r. - in k. - became born
r. was born from k.)

22. rāmaḥ - daśarathāt - ajāyata
D SO ab
r. - from d. - became born
(r. was born from d. (i. e. father))

22.′* rāmaḥ - daśarathe - ajāyata
D SO l
r. - in d. - became born

[Sentence 22, but not 22′, is acceptable. The acceptability of Sentence 21′, as opposed to 22′, perhaps, relates to the knowledge of the world i. e. mother, not father, bears the child in her womb.]

23. adyataḥ - avakāśaḥ - asti
SO Es
from today - holiday - is
(there is holiday from today).

The case-category SO, as indicated earlier (II. 4. 2.) need not refer to temporal and spatial entities only. In sentences 20-22, the case-category SO does not refer to time or place.

The case-category SO is distinguished from A/D/Es/R/O/F/I. It is distinct from A/D/Es/O as it can never be subjectivalised. Secondly, SO presupposes the occurrence of A/D/Es/O in the case-frame as in the sentences above. In certain constructions O, I (sentences 10, 12, 16, 19; II. 2. 1. 2.) and L as well (II. 4. 3. 3.) can be selected for subjectivalisation, but SO can never be. SO is distinguished from R/O/F/GO also in respect of the operation of the process of passivisation, as this process never applies to SO.

II. 4. 5. 1. The case-category SO which occurs in sentences 17-23, characterises the entity from which an action/process which has been initiated by another actant (i. e. A/D and in certain constructions Es/O), emanates. But, there are constructions like 24-28 where this definition does not help, and the underlined NP's pose a problem for case-specification.

24. sa - siṃhāt - bibheti
D nom ab
he - from lion - fears
(he fears from the lion)

25. snuṣā - śvaśurāt - jihreti
A nom ab
daughter - in - law - father - in - law - feels shy
(the daughter-in-law feels shy of her father-in-law)

26. mūṣaḥ - otoḥ - nilīyate
A nom ab
mouse - from cat - hides
(the mouse hides itself from the cat)

27. mātā - putram - agneḥ - niṣedhati
A nom R acc ab
mother - son - from fire - checks
(the mother keeps her son from fire)

28. kṛṣakaḥ - gām - śasyebhyaḥ - vārayati
A nom R acc ab
farmer - cow - from crops - checks
(the farmer keeps the cow from the crops)

There appears to be three ways for the specification of the NP which has not been assigned a case-category in sentences 24-28 above : (i) SO as the starting point or point of departure for an action/process (as in sentences 24-28) is may be considered more abstract and the NP (in 24-28) specified as SO ; (ii) the NP not specified as a case in sentences 24-28 above, may be explicated in terms of morphological features only (i. e. the ablative inflexion may account (for a case-category or none at all) in the context of the verb concerned) ; (iii) sentences 24-28 may be derived from complex underlying structures. The first option implies not only extraction of common semantic elements of verbs, but also abstraction of these common semantic elements at a level which may become uninteresting ultimately[114] (see II. 4. 5. 2. also) ; and as such is not followed in this analysis. The

114. Cf. Subrahmanya Sastri, P. S., (1957), pp. 92-98 : he refers to Patañjali's views assigning the 'apādāna - kāraka' (comparable to SO) to the unspecified NP's in the above sentences, which do not appear convincing and reduce the different lexical items to a point where nothing is left of their characteristics as individual lexical items.

third option has been followed by Sanskrit grammarians[115] in the case of sentences like 25, which could be derived from a structure underlying a complex sentence like 25′.

25′. snuṣā - śvaśuram - dṛṣṭvā[116] -
A nom R acc V Nom
daughter-in-law father-in-law - having seen -
jihreti
feels shy
(having seen her father-in-law, the daughter-in-law feels shy)

But, it is not clear how sentence 24 is different[117] from 25, and thus, justifies a derivation which is different from that of sentence 25(assuming that the derivation of 25 is correct). But, there appears to be lack of syntactic justification to derive sentences 24-28 from structures underlying complex sentences. Sentences 27, 28 could be related to sentences 27′, 28′ wherein the underlined NP is complex in structure, but the problem of case-specification remains as it is.

27′. mātā - putram - agneḥ - samīpāt - niṣedhati
A R O g ab
mother - son - of fire - from proximity - checks
(the mother keeps her son from the proximity of fire)

28′. kṛṣakaḥ - gām - śasyānām - samīpāt - vārayati
A R O g ab
farmer - cow - of crops - proximity - checks

115. Roy, S., (1920), p. 62 : Vārtika on Pāṇini's rule I. 4. 31.

116. Cf. Roy, S., (1920), p. 62 : the Sanskrit grammarians would like to assign obligatorily a pre-verb to VNom in 25′ which would lead to some morphological variation (i. e. 'saṃdṛśya' in the place of 'dṛṣṭvā'), which involves no change in the meaning. But, it is difficult to see any syntactic or semantic justification for the position of the Sanskrit grammarians.

117. The Sanskrit grammarians have not proposed a derivation comparable to that of 25, in the case of sentence 24.

(the farmer keeps the cow from the proximity of crops)

The second option mentioned above, amounts to the acceptance of the inadequacy of the case-notion for certain constructions. In other words, the case-category SO is assigned to the underlined NP's in sentences 24-28 on the basis of the ablative inflexion in relation to the verbs. Or, alternatively, no case-category is specified, the NP's are explicated with reference to the ablative-inflexion conditioned by the verbs concerned.

However, consider sentences 29, 30 which appear to come from structures underlying complex-sentences like 29′, 30′.

29. yuvatī - landana ṭāvarāt - bālakam - paśyati
D nom ab R acc
young lady - from London tower - boy - looks
(the young lady looks at the boy from the London-tower)

29′. yuvatī - landanaṭāvare - sthitvā - bālakam - paśyati
D L l VNom R
young lady - in London tower - staying - boy - looks
(the young lady, staying in the London-tower, looks at the boy)

30. guruḥ - āsanāt - śiṣyān - upadiśati
A ab R acc
teacher - from seat - pupils - preaches
(the teacher, from his seat, preaches to the pupils).

30′. guruḥ - āsane - sthitvā - śiṣyān - upadiśati
A L l V_{Nom} R
teacher - in seat - having stayed - pupils - preaches
(the teacher, staying in his seat, preaches to the pupils)

There are reasons to derive 29, 30 from the structures underlying sentences 29′ 30′ respectively. In the first instance, the NP's with ablative inflexion (i. e. 'landana-ṭāvarāt' and 'āsanāt' respectively) limit the locational reference to 'yuvatī' and 'guruḥ' in 29, 30 respectively (cf. sentence 29″ wherein the NP 'landana-ṭāvare' may be related to both 'yuvatī' and, bālakam', and sentence 29″′ which is unacceptable); and, thus, will be derived from 'landana-ṭāvare sthitvā' and, 'āsane sthitvā' respectively (in sentence 29′, 30′)'.

29″. yuvatī - landanaṭāvare - bālakam-paśyati
D L l R
young lady - in London-tower - boy - looks
(the young lady looks at the boy in the London-tower)

29″*. yuvatī - landanaṭāvarāt - bālakam -
D ab R acc
young lady - from London tower - boy -
landanaṭāvare - sthitam - paśyati
L l VNom
in London - tower - staying - looks
(from the London tower, the young lady looks at the boy staying in the London tower)

Secondly, consider sentences like 30″, 30″′. If sentence 30″ is interpreted like sentence 30″′, the NP's 'āsane'[1] and 'āsane'[2] (in sentence 30″) cannot be co-referential. It indicates that the NP 'āsanāt' (in sentences 30″′) could only come from a structure underlying 'āsane-sthitvā' (in sentences 30′, 30″).

30″. guruḥ - āsane[1] - sthitvā - śiṣyān - āsane[2] -
A L l VNom R L l

teacher - in seat - having stayed - pupils -in seat-
sthitān - upadiśati
^{V}Nom
staying - preaches
(staying in his seat the teacher preaches to his pupils staying in the seat)

30‴. guruḥ - āsanāt - śiṣyān - āsane - sthitān -
A ab R L l VNom
teacher - from seat - pupils - in seat - staying-
upadiśati
preaches
(from his seat the teacher preaches to the pupils staying in the seat)

The above treatment of sentences 29, 30 raises the problem of the postulation of some form of abstract verb in the place of the VNom in sentences 29′-30′, and though there are severe restrictions with regard to items that can occur as VNom in such constructions, the justification for the postulation of one or the other VNom is not clear at present. However, with this treatment of sentences like 29,30, assigning the case-category SO to the NP's unspecified in sentences 29, 30, is not needed.[118]

II. 4. 5.2. Now, consider a sentence like 31, which contains a SO with complex structure (cf. SO in 17-23).

31. [gehāt / gehasya - antikāt] - sevakaḥ - yāti
SO O ab g ab A nom
from house/of house - from near - servant - goes
(the servant goes from near the house)

118. The case-categories are specified with reference to the underlying structures of sentences. Assuming that sentences 29-30 are derived from structures underlying 29′, 30′ there is no need to specify case-category SO in 29-30.

The complex structure of SO is to be interpreted in terms of the schema NP → N (O) indicating, thereby, the inalienable relationship between N and O.[119]

Consider, next, sentences 32, 33 below and 20 above in which one might argue for the equation of SO with A.

32. mohanaḥ - rāmāt - pustakam - krīṇāti
A nom SO ab O acc
m. - from r. - book - buys
(m. buys a book from r.)

33. putraḥ - pituḥ - patram - gṛhṇāti
A SO ab O acc
son - from father - letter - takes
(the son takes a letter from his father)

There are, however, reasons for not accepting such an analysis. In the first instance, it has been mentioned (II. 4. 5.) that there is need to distinguish SO from A because of the reasons given therein. Secondly, such an analysis presupposes a componential treatment of verbs like 'adhīte' (learns), 'krīṇāti' (buys), 'gṛhṇāti' (takes) (in sentences 20, 32, 33), and simultaneously takes into consideration verbs like 'adhyāpayati' (teaches), 'vikrīṇāti' (sells), 'dadāti' (gives) respectively.[120] But, in this analysis a verbal form is taken as one complete lexical unit (no componential analysis is taken into account, and case-categories are specified with reference to this verbal form, i. e. without taking into consideration any other verbal form related or otherwise. Thirdly, in a broader sense, A(gentive), in any case-frame, could be substituted with SO, or SO with A(if SO refers to

119. Cf. IV. 3. 2. 1. 1. 7.
120. Anderson, J.M. (1971).

entities which are [+animate], as A is the initiator of the action denoted by the verb; though this is possible only when other verbal forms are taken into consideration). But, this substitution (of A with SO or vice-versa) does not appear to be appropriate. One distinction between A and SO (in case both refer to entities which are [+animate] as in 20, 32, 33) lies in the fact that A is the initiator of the action/process, but SO is not (with reference to a particular verb), and this is why in such constructions SO presupposes the occurrence of A in the case-frame. If SO in sentences 20, 32, 33 is re-specified as A, this significant distinction between A and SO is missed. Fourthly, the verbs 'adhyāpayati' (teaches) and 'dadāti' (gives) do not always imply verbs like 'adhīte' (sentence 20), and 'gṛhṇāti' (sentence 33). Thus sentences 34, 35 are possible.

34. guruḥ - śiṣyam - adhyāpayati - parantu - sa - no - adhīte
A R
teacher - student - teaches - but - he - not - learns
(the teacher teaches the student but he does not learn)

35. rāmaḥ - { mohanāya / mohansya } - pustakam - dadāti - parantu - sa -
O
A GO
r. — for/of m. — book — gives — but — he
no - gṛhṇāti
not - takes
(r. gives a book to m. but he does not take)

It is possible that a teacher may not teach a student, and yet he may learn from the teacher by overhearing him. I suspect that even in the case of 'krīṇāti - vikrīṇāti, (buy-sell), it is not always that whenever x sells to y, y buys it.

9

II. 4. 6. The case-category GO has been referred to as 'the destination'.[121] Fillmore would like to assign this case-category to an entity without any specification of animacy. In sentences 36-40 the case-category GO co-occurs with A.

36. sevakaḥ — nagaram / nagarāya — yāti
A GO acc d
servant — to town / for town — goes
(the servant goes to the town)

37. mohanaḥ — rāme — pustakam — vikrīṇāti
A GO l O
m. — in r. — book — sells
(m. sells a book to r.)

38. sa — priyāyām — patram — preṣayati
A GO l O
he — in beloved — letter — sends
(he sends a letter to his beloved)

39. pitā — putrāya — pustakam — dadāti
A GO d O
father — to son — book — gives
(father gives a book to his son)

40. guruḥ - chātrebhyaḥ / chātreṣu - pustakāni - vitarati
A GO d l O
teacher-for students / in students-books-distributes
(the teacher distributes books to the students)

The case-category GO presupposes the occurrence of A. One characteristic that distinguishes GO from A/D (and also O/I/L) relates to its non-selection for subjectivalisation. Thus a sentence like 41 would be unacceptable.

41.* pitrā/pitā — putraḥ— pustakam–dadāti/dīyate
A i A nom GO nom O acc
by father / father — son — book — gives

121. Fillmore, C. J., (1971), p. 259.

The case-category GO is distinct from R/O/F also. If the subjectivalisation-rule does not apply to A/D, and R/O/F along with GO, is present in the case-frame, the process of passivisation follows, and R/O/F, not GO, is selected for agreement with the V. Thus, 40′ and not 40″, is acceptable. In 40′, O rather than GO has been subjectivalised.

40′. guruṇā - chātrebhyaḥ / chātreṣu - pustakāni-
A i GO d GO 1 0 nom
by teacher - to students / in students - books
vitīryante
are distributed
(books are distributed to students by the teacher).

40″.* guruṇā - chātrāḥ - pustakāni - vitīryante
A i GO nom O acc
by teacher - students - books - are distributed

However, a sentence like 36 above is an exception to this characteristic of GO. If the subjectivalisation-rule does not apply to A in sentence 36, the process of passivisation operates, and GO is optionally subjectivalised. But, there is one condition that in such constructions containing verbs like 'yāti' and its equivalents, GO does not co-occur with F/R/O. Again, this exceptionality of GO is valid only when it occurs in the case-frame of verbs which are parallels of 'yāti' (go). Thus, sentence 36′ is the alternative form of 36 above (in case subjectivalisation-rule has not applied).

36′. tena — nagaram — yāyate
A i GO nom
by him — town — is gone
((it) is gone to the town by him)

The case-category GO, like SO, may be assigned to NP's which do not refer to time and place, as in sentences 37-40.

Secondly, the NP specified as GO may be a complex structure as in sentences 42, 43.

42. sevakaḥ — [gehāt / gehasya — antikam] — yāti
A GO O ab O g
servant — from house / of house — near — goes
(the servant goes near the house)

43. putrī — [pituḥ — antikam] — yāti
A GO D g
daughter - of father - near — goes
(the daughter goes near her father)

The case-category GO in sentences 42, 43 above, is allowed for by the schema NP ⟶ $N\left(\begin{Bmatrix} O \\ D \end{Bmatrix}\right)$.

II. 4. 6. 1. Consider, next, sentences 44, 44′, 44″ in which the GO has different surface-realisations which account for some semantic distinction. It is not clear, at present, how to get round this problem.

44. kāmukaḥ / sa — dāsyā - dhanam - samprayacchate
A nom nom GO i O acc
lecher/he - with maid - servant - money - gives
(a lecher/he gives money to the maid-servant)

44′. sa — dāsyai — dhanam — samprayacchati
A nom GO d O acc
he — to maid-servant — money — gives
(he gives money to the maid-servant)

44″.* kāmukaḥ — dāsyai — dhanam—samprayacchati
A nom GO d O acc
lecher - to maid-servant - money - gives.

In sentence 44, the GO is realised inflexionally as 'i' and in 44′ as 'd' along with the difference in the verb-ending (i.e. it is 'te' in 44 and 'ti' in 44′). These surface-distinctions impose meaning-distinctions (sentence 44, 44′) which may be culture-specific?

II. 4. 6. 2. In this section, a set of sentences (45-49) which contain NP's (unspecified with reference to any case-category) ending in 'd-inflexion (cf. GO in sentences 36, 39, 40), and which can be derived from complex structures underlying sentences 45′ - 49′, are considered.

45. mātā — putrāya — śete
A nom d
mother — for son — sleeps
(the mother sleeps for her son)

45′. mātā — putram — prīṇayitum — śete
A nom R acc VNom
mother — son — to please — sleeps
(the mother sleeps to please her son)

46. kanyā — chātrāya — tiṣṭhate
D nom d
girl — for student — stays
(the girl stays for the student)

46′. kanyā — chātram — prīṇayitum — tiṣṭhati
D nom R acc VNom
girl — student — to please — stays
(the girl stays to please the student)

47. sevakaḥ — phalāya — yāti
A d
servant — for fruit — goes
(the servant goes for fruit)

47′. sevakaḥ — phalam — āptum — yāti
A nom O acc VNom
servant — fruit — to get — goes
(the servant goes to get fruit)

48. sa — gurave — pustakam — ānayati
A d O acc
he — for teacher — book — brings
(he brings a book for his teacher)

48′. sa — gurave — dātum — pustakam — ānayati
A nom GO d VNom O acc
he — to teacher — to give — book — brings
(he brings a book to give it to his teacher)

49. svarṇakāraḥ — kuṇḍalāya — svarṇam — nayati
A nom d O acc
goldsmith — for earring — gold — carries
(the goldsmith carries gold for earring)

49′. svarṇakāraḥ-kuṇḍalam-nirmātum-svarṇam-nayati
A nom F acc VNom O acc
goldsmith — earring — to make — gold — carries
(the goldsmith carries gold to make an earring)

One may argue that Go defined as 'the destination' (II. 4. 5.), may be assigned to the unspecified NP's in 44-48 above. But, the definition, as given by Fillmore, needs further amplification. The case-category GO is to be assigned to an entity which is an obligatory part of the case-frame of the verb concerned, in addition to its being 'the destination' to which the action is directed. In 44-48, the unspecified NP's are not an obligatory part of the verbs (in 44-48), rather they are obligatory part of an embedded S.

One might argue that there may be a semantic interpretive rule to account for the meaning (as indicated in 44′-48′ above). But, if sentences 44-48 are derived via 44′-48′, the problem of postulating an interpretive rule is avoided, and, besides, there is no problem with regard to case-specification. However, despite the restriction on the items that can occur under VNom in sentences 44′-48′ (cf. sentences 44″-48″ below), there remains the difficulty of recovering [122] the deleted items (specified as VNom in sentences 44′-48′).

122. Chomsky, N., (1965), pp. 132, 222 (f. n. 1).

45″. mātā - putram-* { krodhayitum (to make angry) / rodayitum (to make weep) / khādayitum (to feed) / hāsayitum (to make laugh) / tāḍayitum (to beat) / pāṭhayitum (to teach) / svāpayitum (to make sleep) } -śete
mother - son VNom sleeps

46″. kanyā - chātram -* { āhvayitum (to call) / dātum (to give) / tāḍayitum (to beat) / dhartum (to catch) } —tiṣṭhate
girl — student - V Nom stays

47″. sevakaḥ -phalam-* { kretum (to buy) / khāditum (to eat) / vikretum (to sell) / gaṇayitum (to count) / dātum (to give) / voḍhum (to carry) / ānetum (to bring) / paktum (to cook) / chettum (to cut) } - yāti
servant - fruit VNom goes

48″. sa -gurum- * { darśayitum(to show / pāṭhayitum(to teach } -pustakam-ānayati
he - teacher - VNom -book -brings

49″. svarṇakāraḥ-kuṇḍalam-* { vikretum (to sell) / kretum (to buy) / kṣeptum(to throw) / chettum (to cut) / draṣṭum (to see) } -svarṇam -nayati
goldsmith - earring Vnom -gold -carries

As sentences like 45-49 are derived from complex structures underlying 45′-49′, the unspecified NP's in 45-49 need not be assigned a case-category.

There has been a suggestion[123] to treat 'for-phrases' (specified as Benefactives and Delegatives)[124] as surface-

123. Moore, T., (1971).

124. Moore, T., (1971), p. 1.

phenomena and derive them from underlying Datives and Agentives. In Sanskrit, phrases comparable to 'for-phrases' specifying Benefactive and Delegative, are differently realised (as in 50-51 below). Sentence 50 cannot have the interpretation of sentence 51.

50. sa — mitrāya — vāsaḥ — krīṇāti
he — for friend — dress — buys
(he buys a dress for his friend)

51. mitrāt prati — sa — vāsaḥ — krīṇāti
ab PP
from friend — he — dress — buys
(he buys a dress on behalf of his friend)

In so far as sentence 50 is concerned, it will have a derivation similar to that of 48 above. In other words, sentences like 50 will be derived from complex underlying structures and there will be no need to specify a case-category in sentences like 50.

Though the syntactic similarity (in respect of 'movement around objectives and passivisation')[125] between Benefactive (for-phrases) and Dative constructions in English, does not obtain in Sanskrit, yet the treatment of sentences like 45-50 as derived from complex structures falls in line with the suggestion that 'for-phrases' and their equivalents come from underlying complex structures.

As mentioned earlier, complex sentences are not taken up in this analysis, and hence they are not discussed further.

II. 4. 7. The case-category Ext(ent) has not been explicitly mentioned by Fillmore. But he hints[126] at the possibility of

125. Moore, T. (1971) p. 4.
126. Fillmore, C. J., (1971), p. 260.

and necessity for such a case-category, in view of sentences like 52, 53.

52. sevakaḥ — dinam — abhramat
A Ext
servant — day-long — wandered
(the servant wandered day-long)

53. nadī — krośam — vahati
O Ext
river — two miles — flows
(the river flows for two miles)

The case-category Ext can co-occur with SO, GO as in 54.

54. chātrāvāsāt — [vidyālayam yāvat] — [ayam —
SO ab GO acc Es
from hostel — school till — this
mārgaḥ] — krośam — asti
Ext acc
road — two miles — is
(from the hostel, this road is two miles up to the school)

Fillmore argues[127] that Ext cannot occur with SO. But, in sentences 54 (above) and 55 (below) Ext occurs with SO, GO, and, in 56, with L.

55. adyataḥ — [grīṣmam yāvat] — trīn māsān
SO GO Ext
from today — summer till — three months
satram — sthāsyati
O
session — will continue
(the session will continue, from today till summer, for three months)

127. Fillmore, C. J., (1971), p. 260.

56. sa — dine — ghaṇṭādvayam—vyākaraṇam—apaṭhat
A L Ext O
he — in day - for two hours — grammar — read
(he read grammar in the day for two hours)

II. 4. 7. 1. Consider, now sentences 57, 58 containing the underlined NP's which are to be derived from complex underlying structures in sentences 57′, 58′.

57. [ayam vidyālayaḥ] -chātrāvāsāt — krośaḥ/krośe —
Es SO nom l
this school - from hostel-two miles/at two miles
asti
is
(this school is two miles from the hostel)

57′. [ayam vidyālayaḥ] — chātrāvāsāt — krośam —
Es SO Ext
this school — from hostel — two miles —
atikramya — △ — asti
VNom L
having crossed — △ — is
(having crossed two miles from the hostel, there is the school (in △))

58. adyataḥ — māse — dīpotsavaḥ — asti
SO l Es
from today - in one month - festival of lights - is
(the festival of lights is one month ahead)

58′. adyataḥ - māsam - atikramya - dipotsavaḥ - △ - asti
So Ext VNom Es L
from today - one month - having crossed - festival of lights -△- is
(having passed one month from today, there is the festival of lights (in △)).

The NP's underlined in 57, 58, do not mean that the school is two miles long or the festival is extending for one month; rather they indicate 'beyond two miles/one month,' and have to be interpreted in terms of sentences 57′, 58′, respectively. It may be noted that sentences 57, 58, have a dummy L in the underlying structures (as in 57′, 58′,). The NP's underlined in sentences 57, 58, may be left without case-indication as they include the L as well (as apparent from 57′, 58′), and, besides, case-categories need to be specified in underlying structures only.

Sentences like 57, 58, differ from sentences 51-55 (above) with regard to the nature of Ext as is evident from sentences 59, 60. Assuming that the mountain and the school are in the same direction, sentence 59 is acceptable, but sentence 60 is not. This fact lends support to the position that the underlined NP's in 57, 58 come from the complex structures (in sentences 57′, 58′).

59. [asmāt sthānāt] - parvataḥ - krośam - asti
So Es Ext
from this place - mountain - two miles long - is
vidyālayaḥ - ca - krośaḥ / krośe - asti
Es nom l
school - and - at two miles - is
(from this place, the mountain is two miles long and the school is at two miles)

60.* [asmāt sthānāt] - parvataḥ - krośam - asti
SO Es Ext
from this place - mountain - two miles - is
vidyālayaḥ - ca - krośam - asti
Es Ext
school - and - two miles - is

II. 4. 7. 2. Consider, next, sentences 61, 62. It is not clear how the semantic distinction between them, without

referring to morphological phenomenon, can be accounted for. In 61, not in 62, the interpretation indicates the completion or fruition of the action.

61. chātraḥ - dinena - upanyāsam - apaṭhat
A Ext i O acc
student - day-long - novel - read

(the student read (completely) the novel during the day)

62. chātraḥ - dinam - upanyāsam - apaṭhat
A Ext acc O
student - day-long - novel - read

(the student read the novel day-long)

The Ext in 61 is realised with an i-inflexion, and in 62 with an acc. It may suggest that a sentence like 61 could be derived from a structure like that underlying sentence 61′, but it involves the status of adverbials, which is not discussed in this analysis.

61′. chātraḥ - dinam - upanyāsam - {niḥśeṣam / saphalam} -apaṭhat
A Ext acc O acc
student - day-long - novel - {completely / fruitfully} - read

(the student read the novel day-long completely/fruitfully)

A further distinction between 61 and 62 is related to negation.[128] Sentence 61″ is unacceptable (it may be noted that the adverbial in 61″ cannot co-occur with negation), but sentence 62′ is ambiguous.

61″.* chātraḥ - dinena - upanyāsam - no - apaṭhat
A Ext i O
student - by day - novel - not - read

128. In this analysis constructions containing negation have not been discussed.

62′. chātraḥ - dinam - upanyāsam - no - apaṭhat
A Ext acc O
student - day-long - novel - not - read
(the student did not read the novel (at all) day-long)/
(the student did not read the novel day-long (but for a while))

II. 4. 8. The case-category Pa(th) has been suggested recently[129], and is justified on the basis of constructions like 63, 64.

63. kandukaḥ - gavākṣeṇa - veśmani - apatat
O nom Pa i GO l
ball - through window - in room - fell
(the ball fell in the room through the window)

64. sevakaḥ - ucchiṣṭam - mahānasāt - gavākṣeṇa -
A O SO ab Pa i
servant - leftover - from kitchen - through window
[prākārasya upariṣṭāt] - mārge - kṣipati
Pa O g GO l
of fence from above - on road - throws
(the servant throws the garbage on the road through the window over the fence)

The case-category Pa is distinguished from SO, GO, Ext, in the sense that it can occur more than once in a simple sentence (as in 64 above). It is distinct from L also, as its re-occurrence cannot be interpreted like L (in sentence 8) as an instance of multiple self-embedding (i. e. one occurrence of Pa cannot be conceived of as contained within the other). Moreover, constructions like 64 cannot be interpreted as conjoined structure (cf. sentences 10, 11).

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129. Fillmore, C. J., (1971), pp. 259-260. Cf. Bennett, D. C., (1972), pp. 58-67.

It is one action which is associated with two Pa's in sentence 64 above. It has been argued that this Pa case-category can be repeated indefinitely,[130] in a simple sentence. But, perhaps, it is possible theoretically only. In Sanskrit, it is doubtful whether more than two occurrences of Pa are possible without making the construction complex. One important characteristic of Pa lies in the fact that it relates to space-orientation only, and not to temporal orientation.

II. 4. 9. Fillmore is of the opinion[131] that a case-category like Ext may combine SO, GO in certain constructions. In sentence 65, SO and GO indicate what is Ext in 66. Thus he proposes the possibility of a 'hypercase'[132]. But, as indicated in 55 (above), Ext can co-occur with SO and GO.

65. [rāja-mārgaḥ] - vidyālayāt -
Es nom SO ab
main road - from school
rājendra-mārgam yāvat - asti
GO acc
rājendra road till - is
(the main road runs from the school to the rājendra road)

130. Stratton, C. R., (1971), p. 226.

131. Fillmore, C. J., (1971), pp. 260-261.

132. Fillmore, C. J., (1971), p. 260 : 'Expressions of duration and distance introduce new orders of problems for a case-analysis of verbs of movements and change because they somehow seem to *combine* the source and goal notions into a single unit, a 'hypercase' as it were.' But, as shown earlier, SO and GO refer to entities which are not restricted to temporal-spatial orientation. Secondly, constructions like 61, 62 (II. 4. 7. 2.) containing Ext, are semantically distinguished as well. Thirdly, Ext can occur with SO and GO. Thus, Ext cannot be postulated in terms of a 'hypercase' combining SO and GO.

66. rājamārgaḥ - ardhakrośam - asti
Es Ext acc
the main road-one mile - is
(the main road is one mile (long))

Fillmore's suggestion of a hypercase follows from the possibility of treating the cases related to space and time as outside VP or P(roposition)[133]. On the basis of this, he hints at the analysis of these case-categories dominated by superordinate structure[134]. Fillmore has not worked on this suggestion himself. If this position is accepted, then, all sentences containing temporal or spatial orientation, will have complex deep structures[135]. Secondly, in the case of verbs like 'śete' (sleeps), 'krīḍati' (plays), 'pacati' (cooks), 'yāti' (goes), 'viśati' (enters), 'patati' (falls), there may be no justification for assigning some of the cases related to space and time (it is not the case that

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133. Fillmore, C. J., (1971), p. 258 : 'One possibility of dealing with these cases (place, time) is that of saying that they are optional complements of essentially any predicator.'

134. Fillmore, C. J., (1971), p. 258 : 'clauses that are capable of designating actions or events or situations which can be located in space and time are themselves to be embedded into higher sentences containing as their main verb something like (occur) or (happen), with the understanding that this higher verb which takes location - and - time introducing cases.' This statement implies that all structures have superordinate locative/temporal constructions and thus, if followed, it would blur syntactic distinctions which do exist.

135. Cf. Lakoff, G. (1968) : Lakoff, in support of more abstract deep structures would like to remove adverbial phrases from the deep structures of simple sentences (see II. 3. 5. 2.).

both of them may be obligatory parts of a case-frame, but one or the other may be obligatory) to a superordinate structure. Besides, Fillmore is not explicit how this 'hypercase' is to be specified in the superordinate structure (i. e. under P or S: it cannot be under M as cases are not dominated by M). Thus, there appears to be no semantic justification for this suggestion, and so, it is not incorporated in this analysis.

III

NP-ASTI-NP CONSTRUCTIONS

III. In this chapter, constructions which contain the verb 'asti' (is), are discussed and specified as to the case-categories occurring therein. The discussion begins with a reference to the treatment of such sentences by the Sanskrit grammarians and by linguists (section III. 1.), and is followed by the analysis of the case-categories that can be assigned in such sentences (section III. 2.).

III. 1. The Sanskrit grammarians analyse syntactic structures within the theory of 'kāraka'-relations. However, they leave out sentences like 1 which are mentioned as examples of the occurrence of 'ṣaṣṭhī-vibhakti' (sixth-inflexion i.e. g[1])

1. dhanikasya — putraḥ — asti
   g
   of wealthy (man) — son — is
   (wealthy man has a son; there is the son of a wealthy man)

Such constructions are excluded from the analysis of 'kāraka'-relations[2]. Direct relations between the denotations of two nouns are excluded.'[2] Staal refers to such as 'nominal' sentences.[3] However, his discussion does not

1. 'g' refers to genitive inflexion as opposed to G(enitive) constructions which are discussed in chapter IV.
2. Staal, J. F., (1967), p. 38.
3. Staal, J. F., (1967), pp. 52, 56, 68.

go beyond the word-order involved therein. Constructions like 1 (above) and 2 (below) have engaged the minds of linguists, who have classified such sentences as 'copulative' and 'existential' [4]

2. rāmaḥ — bālakaḥ — asti
r. — boy — is
(r. is a boy)

The copulative class consists of sentences like 3-7.

3. rāmaḥ — [ayam chātraḥ] — asti
Es T
r. — this student — is

4. rāmaḥ — chātraḥ — asti : class-membership
Es T
r. — student — is
(r. is a student)

5. hariṇaḥ — paśuḥ — asti : class-inclusion
Es T
deer — animal — is
(deer is an animal)

6. phalam — madhuram — asti : property-assignment
Es T
fruit — sweet — is
(fruit is sweet)

7. bālikā — gṛhe — asti : locational reference
Es L
girl — in house — is
(the girl is in the house)

It may be noted that the L in a sentence like 7 can be a complex structure as in 7′.[5]

7′ mandiram — [upavanasya dakṣiṇam] — asti
Es L O g
temple — of garden south — is
(the temple is in the south of the garden)

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4. Lyons, J., (1968), pp. 388-90.
5. See II. 4. 3. 1.

The above sentences are distinguished from an existential sentence like 8.

8. iśvaraḥ — asti
god — is
(there is a God)

It is apparent that an existential sentence like 8 has one argument[6] only, unlike sentences 3-7. But, as an existential sentence 8 is an exception. Because, a sentence like 9 is unacceptable unless it is in reply to a query or it has a locational argument as in sentence 10.

9. siṃhaḥ - asti
lion - is

10. vane - siṃhaḥ - asti
L Es
in forest - lion - is
(there is a lion in the forest)

However, a sentence like 11 with a verb 'bhavati' (becomes) and no locational phrase, is possible. Though, I suspect that sentence 12 as opposed to sentence 13, is not acceptable.

11. siṃhaḥ - bhavati - parantu - ekaśṛNgaḥ - no - bhavati
lion - exists - but - unicorn - not - exists
(lion exists but unicorn does not exist)

12.* siṃhaḥ - bhavati
lion - exists

13. siṃhaḥ - vane - bhavati
lion - in forest - exists
(lion exists in the forest)

For the analysis of case-relations, it appears difficult to justify the retention of this distinction between copulative (including locational) and existential, specially keeping in view sentences like 7, 7′ and 10. If the distinction needs

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6. See II. 1. 1. (f. n. 4).

to be maintained, it should be between sentences 3-6 and 7, 7′, 10 i.e. copulative vs. existential and/or locational. Bach refers to such constructions as containing either an NP (in sentences 3-5) or an adjective (in sentence 6) or locational phrase (in sentences 7, 7′ and 10).[7] Fillmore calls such constructions (3-7′ above) 'nominal predicates' or 'N be N type'.[8] With slight modification, I will refer to such types, henceforth, as NP - asti - NP constructions.

III. 1. 1. The NP - asti - NP constructions (3-7′ 10), though considered distinct from each other (as indicated by the characteristics mentioned on the right hand side above), are taken together for specification of the case-categories. The case-categories that may occur in NP - asti - NP constructions are discussed below.

The case-category Es(sive) is assigned to the arguments underlined in sentences 3-7′, 10, the other case-categories being T(ranslative) and L(ocative). In sentences 7, 7′, 10, Es is specified for the NPs 'bālikā' (girl), 'siṃhaḥ' (lion) and 'mandiram' (temple) and L for the NP's 'gṛhe' (in house), 'upavanasya-dakṣiṇam' (south fo temple) and 'vane' (in forest).[9] In sentences like 7, 7′, 10, the L can never be selected for subjectivalisation. Thus, a sentence like 14 is unacceptable i.e. there is no equivalent to the sentence 'the house has a girl in it.'

14.* gṛham — bālikā — asti
house — girl — is

In sentence 6, 'phalam' (fruit) is Es. In any construction like 6, the adjective (i. e. 'madhuram' (sweet)) cannot be Es

7. Bach, E., (1967a), p. 462.

8. Fillmore, C. J., (1968a), p. 84.

9. L(ocative) is discussed in II. 4. 4.

as the selectional features of 'madhuram' derive from the Es ('phalam'). Compare sentence 6′

6′. sitā — madhurā — asti
Es T
sugar — sweet — is
(sugar is sweet)

The adjective 'madhuṛam' in sentence 6 cannot be considered a modifier of the Es i. e. 'phalam'. Because, in that case there would have been another case-category in the case-frame (such as L in sentence 15).

15. [madhuram phalam] — pādape — asti
Es L
sweet fruit — on tree — is
(there is sweet fruit on the tree)

If a sentence does not contain another case-category (i. e. other than Es and the adjective), the adjective cannot be a modifier of the Es, whatever may be the word-order of the sentence. In other words, the adjective will realise a distinct case-category and not be an expansion of the case-category Es as in sentence 15 above. In sentences 16 and 16′ the adjective 'taruṇaḥ' (young) cannot be a modifier.[10]

16. taruṇaḥ — aśvaḥ — asti
young — horse — is

16′ aśvaḥ — taruṇaḥ — asti
horse — young — is
both — (the horse is young)

However, in a sentence like 17 the adjective 'dayāluḥ' may be interpreted as a distinct case-category (i. e. T) or as a

10. It may be argued that intonational pattern may account for predicative and attributive interpretations of the same adjective. But, as mentioned in the beginning, the intonational pattern is ignored in this analysis.

modifier of 'īśvaraḥ'. But, this ambiguity arises due to the exceptionality (which appears to be non-linguistic) of a sentence like 8 above.

17. īśvaraḥ — dayāluḥ — asti
Es T
god — merciful — is
(God is merciful / there exists merciful God)

In sentences 4, 5 above, 'rāmaḥ' and 'hariṇaḥ' are Es, 'chātraḥ' and 'paśuḥ' in these sentences cannot be Es, because they take on the features of Es i. e. 'rāmaḥ' and 'hariṇah' (cf. sentences 24-30). Even if it is argued that there is a difference between 'chātraḥ' / 'paśuḥ' (sentences 4, 5) and 'madhuram' (sentence 6) taking on the features of Es, this does not affect the postulation of the same category T for all these i. e. 'chātraḥ, paśuḥ and madhuram'. Besides, I suspect that 'chātraḥ' and 'paśuḥ' cannot modify Es i. e. 'rāmaḥ' and 'hariṇaḥ' respectively ('madhuram' in sentence 6 does modify Es but in that case it is not a case-category distinct from Es). Thus sentences 18 and 19[11] are suspect.

18. ? chātraḥ rāmaḥ - pāṭhaśālāyām - asti
student r. - in school - is

19. ? paśuḥ hariṇaḥ - mārge - asti
animal deer - on road - is

Besides, Es in sentence 4 above, must be [+definite]. Thus a sentence like 20 is unacceptable, though 21 is acceptable.

20.* bālakaḥ - chātraḥ - asti
boy - student - is

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11. It may be asked whether 'chātraḥ rāmaḥ' and 'paśuḥ hariṇaḥ' (in 18, 19) are possible as appositionals. I doubt the correctness of this position in face of the untenability of postulating reduced relative clauses in Sanskrit (see sentences 53-54').

21. ayam bālakaḥ - chātraḥ - asti
this boy - student - is

It may be argued that sentence 20 is acceptable. But, it could be so only in a context which makes 'bālakaḥ' [+definite]. In the case of sentences like 22, 'satyam' and 'saundaryam' both have the feature [+definite]. It may be noted that sentence 23 is unacceptable.

22. satyam - saundaryam - asti
Es T
truth - beauty - is
(truth is beauty)

23.* satyāni - saundaryam / saundaryāṇi - santi
truth - beauty / beauties - are

In sentence 3 above the Es, 'rāmaḥ' and 'ayam chātraḥ' are both [+definite]. In such equative sentences either of the NP's may claim to be Es. There are two possibilities: either both NP's may be specified as Es or one of the NP's may be Es and a rule selects this Es for subjectivalisation and the other is T. The choice between these two options, I leave as an open question. Compared with sentence 3 above, sentence 3′ contains 'ayam chātraḥ' specified as Es.

3′. [ayam chātraḥ] - rāmaḥ - asti
Es T
this student - r. - is
(this student is r.)

The case-category Es as mentioned above (pp. 146-150), is assignd to NP's 'rāmaḥ' (sentences 3, 4), 'hariṇaḥ' (sentence 5), 'phalam' (sentence 6), 'bālikā' (sentence 7), 'mandiram' (sentence 7′) and 'siṃhaḥ' (sentence 10). This widening of the scope of Es is unlike that of Lehiste.[12]. It

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12. Lehiste, I., (1969), pp. 332-33; Her Essive includes the underlined NP's in sentences like (i) 'NN is our *ambassador* in London' (ii) 'NN is the *best student* in the class' (iii) 'NN is *one of the best students* in the class', only.

is difficult to say what Fillmore would mean by Es, because he has mentioned nothing (except the term) in this connection.[13]

III. 1. 2. Now, consider the case-categories that may occur in addition to Es in the above sentences. T(ranslative) is a case -category that may co-occur with Es. This case-category can be assigned to NP's 'ayam chātraḥ' (sentence 3), 'chātraḥ (sentence 4), 'paśuḥ' (sentence 5), 'madhuram' (sentence 6). This specification of the case-category T does not take into consideration the distinctions between these NP's mentioned on p. 146. There are two reasons for this. In the first instance, the features of Es determine the features of T. Compare sentences 24-37 with sentenccs 3-6 (above) respectively.

24. sītā - [iyam chātrā] - asti
Es T
s. - this student - is
(s. is this student)
sītā : [+feminine], [+singular]
iyam chātrā : [+feminine], [+singular]

25. [te bālakāḥ] - chātrāḥ - santi
Es T
those boys - students - are
(those boys are students)
te bālakāḥ : [+masculine], [+plural]
chātrāḥ : [+masculine], [+plural]

26. hariṇāḥ - paśavaḥ - santi
Es T
deer(s) - animals - are
(deer are animals)

13. Fillmore, C. J., (1968a), p. 84.

hariṇāḥ : [+masculine], [+plural]
paśavaḥ : [+masculine], [+plural]

27. phalāni - madhurāṇi - santi
Es T
fruits - sweet - are
(fruits are sweet)
phalānī : [-mas. -fem.], [+plural]
madhurāṇi : [-mas. -fem.], [+plural]

However, there are exceptions as well. But, such NP's are lexically determinate to the features of [gender] and [number] as in sentences 28-30.

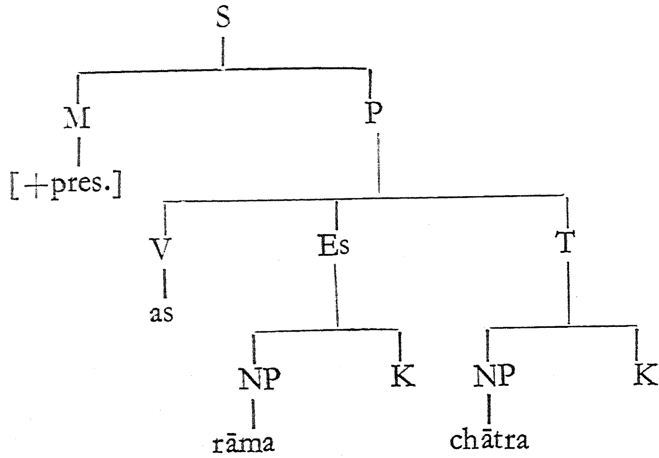
28. sā - [mama mitram] - asti
Es T
she - my friend - is
(she is my friend)
sā : [+feminine], [+singular]
mitram : [-mas. -fem.]'[+singularl]

30. sā - [mama dārāḥ] - asti
Es T
she - my wives - is
(she is my wife)
sā : [+feminine], [+singular]
dārāḥ : [+masculine], [+plural]
asti : [+singular]

Secondly, the NP's specified as T, follow Es with regard to subjectivalisation. If Es is not selected for subjectivalisation (as the subjectivalisation-rule applies optionally), T also cannot be selected for subjectivalisation.

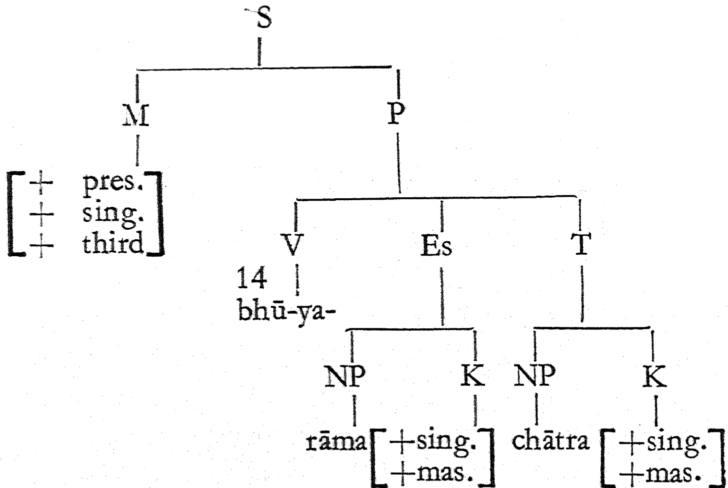
Sentences 4 and 4′ (below) have an underlying structure as in figure I.

Figure I



Es is not selected for subjectivalisation. Consequently, as T is never subjectivalised, no case-category enters into agreement with the V, and the process of passivisation without subjectivalisation (II. 1, II. 2.) operates. The result is as in figure II.

Figure II



14. A morphophonemic rule will substitute 'as' under V with 'bhū'.

The affix-substitution rule replaces features by affixes. The final form is as in figure IV via figure III.

Figure III

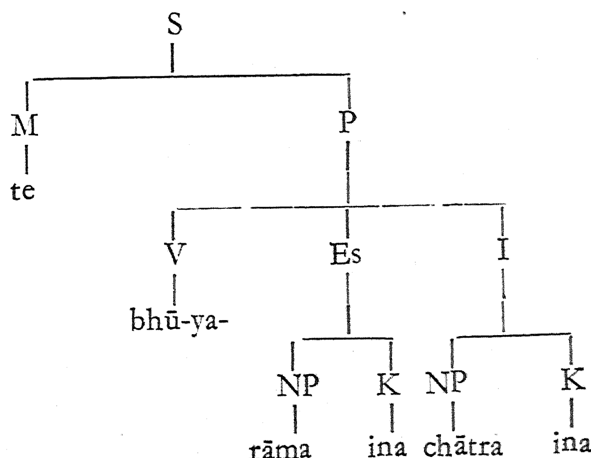
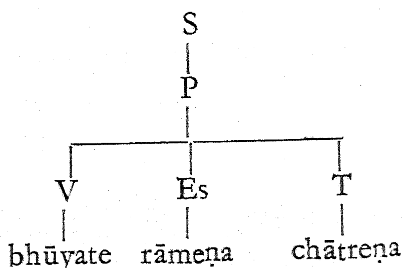


Figure IV



Thus, the alternative form of sentence 4 is realised as 4'.

4'. rāmeṇa - chātreṇa - bhūyate
Es T
by r. — by student - is become
((it) is become student by r.)

Similarly, sentences 3, 5, 6 have alternative forms as 3", 5', 6".

3". rāmeṇa - [anena chātreṇa] - bhūyate
Es T
by r. - by this (by) student - is become
((it) is become this student by r.)

5′. hariṇā – paśunā - bhūyate
Es T
by deer - by animal - is become
((it) is become animal by deer)

5″. phalena - madhureṇa - bhūyate
Es T
by fruit - by sweet - is become
((it) is become sweet by fruit)

In all the above sentences (3″ - 6″) T could not be selected for subjectivalisation even in case of non-subjectivalisation of Es.

III. 1. 3. The second case-category that may co-occur with Es is L(ocative).[15] The case-category L includes temporal as well as spatial distinctions. In sentences 7, 7′, 10 above, the NP's 'gṛhe' (in house), 'upavanasya-dakṣiṇam' (south to the garden) and 'vane' (in forest) are L.

The third case-category that may co-occur with Es, is SO(urce)[16]. Consider sentence 31.

31. chātraḥ - vihārāt - asti
Es SO
student - from Bihara - is
(the student is from Bihar)

III. 1. 4. The fourth case-category that may co-occur with Es is GO(al).[17] In sentence 32 GO co-occurs with SO as well.

32. [ayam mārgaḥ] - chātrāvāsāt - [vidyālayam-
Es SO GO
this road - from hostel - school

15. For details see II. 4. 4.
16. For details see II. 4. 5.
17. For details see II. 4. 6.

yāvat] - asti
till is
(this road runs from the hostel up to the school)

In sentences 33, 34 GO co-occurs with Es and L, SO remaining unspecified.

33. ghaṭe - [mukham yāvat] - jalam - asti
L GO Es
in pitcher - brim full - water - is
(there is water in the pitcher up to its brim)

34. guruḥ - vidyālaye - [sāyam-yāvat] - asti
Es L GO
teacher - in school - evening till - is
(the teacher is in the school till the evening)

III. 1. 5. Another case-category that may co-occur with Es, is Ext(ent).[18] Consider sentences like 35, 36.

35. [ayam mārgaḥ] - krośam - asti
Es Ext acc
this road - two miles - is
(this road is two miles long)

36. godhūmaḥ - [daśa kilogrāmāḥ] - asti
Es nom Ext nom
wheat - ten kilograms - is
(wheat is ten kgs. in weight)

The case-category Es may co-occur with an NP whose morphological representation is marked by 'genitive'[19] as in sentences 1 and 37.

37. [mama - putrasya - pustakam] - asti
Es g nom
of my - of son - book - is
(my son has a book / there is the book of my son)

18. For details see section II. 4. 7.
19. For details see chapter IV.

Sentence 37 is ambiguous and may have both interpretations given above. With either interpretation, the Es in a sentence like 37 is a complex structure. But, if this complexity of structure is accepted, a sentence like 37 should have a case-frame like [Es——], with only one case-category therein. It is unusual to have Es as the only case-category, as a sentence like 8 above, has been considered exceptional. Now, it may be that Es may occur as the only case-category in a case-frame, provided the Es is a complex structure containing an N marked with genitive.

III. 2. It is evident from the above analysis that the case-categories that may be assigned to NP's in NP-asti-NP constructions are different from the case-categories like A/D/R/O/F. At this point it may be relevant to look into the suggestions of Fillmore regarding the NP-asti-NP contsructions. Though he mentions[20] that the case-categories in the case-frames of NP-asti-NP contructions are different from A/D/R/O/F, he does not discuss them in detail. Their inclusion under the sub-title 'Problems and Suggestions'[21], perhaps, explains his sketchy treatment. He refers to case-categories like Es and T, but does not analyse them at all. He suggests that a sentence equivalent to 38 may have the case-category A assigned to 'rāmaḥ'.

38. rāmaḥ - mūrkhaḥ - asti
r. - fool - is
(r. is a fool)

He argues that, in certain constructions, items like 'mūrkhaḥ' (fool) behave like a V occurring in a case-frame like [A——].

20. Fillmore, C. J., (1968a) p. 84 : ... 'sentences of the N be N type... represent a distinct sentence type from those involving any of the case-relations discussed above."

21. Fillmore, C. J., (1968a), p. 81.

But, this suggestion does not appear to be convincing as it is not clear, at all, why sentence 38 is different from sentences 3-6 above, regarding case-specification. Besides, in sentences like 39 which has a non-evaluative predicate, 'mamabhrātā' cannot function like V, and as there is no syntactic difference between them it would not be proper to treat 'rāmaḥ' in 39 as a case-category different from 'rāmaḥ' in sentence 38.

39. rāmaḥ - [mama bhrātā] - asti
Es T
r. - my brother -
(r. is my brother)

It appears that sentences 3-6, 38, 39 should have a similar treatment for case specification.

Fillmore says that some new case-category may be invented.[22] But he does not suggest any himself. His reference to Bach's suggestions[23] does not appear to be helpful. Bach proposes to derive constructions like 'adjective-noun' from constructions like 'noun-is-adjective'.[24] But this proposal suggests nothing about the case-categories that can be assigned to arguments in such a construction.

Bach says that in sentences comparable to NP-asti-NP constructions, verbs like 'asti' (copula) are 'distinguished syntactically from most true verbs by the fact that they have no selectionl restrictions in themselves.'[25] The selection reaches across from subject to object or complement.[25] Usually the selection restriction is between subject and verb/verb and object/subject-verb-object. In a

22. Fillmore, C. J., (1968a), p. 84.
23. Bach, E., (1968), pp. 98-104.
24. Bach, E., (1968), p. 102, f. n. 7.
25. Bach, E., (1967), pp. 476-77.

case grammar, selectional restrictions operate between the V and one or more case-categories. In an NP - asti - NP construction there does not appear to be any co-occurrence restriction between 'asti' and an NP. Consider the acceptable sentences 40, 42 along with 41, 43 which are not acceptable (it may be noted that sentence 43 is acceptable if a metaphorical sense is implied)

40. rāmaḥ - phalam - khādati
A O
r. — fruit — eats
(r. eats fruit)

41.* rāmaḥ — phalam — asti
r. — fruit — is

42. rāmaḥ — paśum — tāḍayati
A R
r. — animal — beats
(r. beats the animal)

43. rāmaḥ — paśuḥ — asti
r. — animal — is

In the case of verbs, it should be enough to state co-occurrence restrictions in terms of the case-categories that may occur in their respective case-frames. But in the case of 'asti' it is not so. The case-frame [Es, T——] allows a sentence like 4 and also a sentence like 41. In other words Es and T remain at a level different from that of A/R/O (in sentences 40, 42).

However, the verb 'asti' does preclude certain case-categories from occurring in its case-frame. F(actitive) is one such case -category that cannot co-occur with the Es as in 44

44.* taṇḍulāḥ — odanam — santi
Es F
rice(s) — boiled rice — are

III. 3. In the preceding discussion, the case-categories that may occur in the case-frames of NP-asti-NP constructions have been specified with one assumption that 'asti' (is) is always present. But, in fact, this is not the case.

In a sentence which is not marked for past or future, the 'asti' is optional in surface structure. Thus in sentence 45 (a) the time-element expressed in the sentence is simultaneous with the point of reference in time (i. e. speaking). Optionally, it need not be expressed at all as in sentence 45(b). In sentence 46, 'āsīt' (was) refers to a time which is anterior to the point of reference (in time) and in sentence 47, 'bhaviṣyati' (will be) refers to a time which is posterior to the point of reference (in time).

45(a). [ayam janaḥ] — adhyāpakaḥ — asti
Es T
this man — teacher — is
(this man is a teacher)

(b). [ayam janaḥ] — adhyāpakaḥ
this man — teacher

[It is not relevant to this discussion whether sentences like 45′/45 (b) involve a point of reference in time or none at all].

45′ vane — siṃhaḥ
in forest — lion : (i) there is a lion in the forest.
(ii) lions live in forests.

46. [ayam janaḥ] — adhyāpakaḥ — āsīt
Es T
this man — teacher — was
(this man was a teacher)

47. [ayam janaḥ] — adhyāpakaḥ — bhaviṣyati
Es T
this man — teacher — will be
(this man will be a teacher)

The above-mentioned characteristic of 'asti' has assumed some significance in view of the differing interpretations by grammarians and logicians regarding the status of the verb in a sentence in Sanskrit.

The Sanskrit grammarians hold the view that every sentence ('vākya') consists of a verbal form.[26] Some scholars interpret the relevant rule as referring to a verb which ends in an affix of the 'tiN'-class only and not to a verbal form in general.[27] Thus, a sentence like 48 which consists of a verb 'ayāt' (went) ending in 'tiN'-class affix (i. e. is 'tiNant') is accepted as a sentence.

48. rāmaḥ — ayāt
A
r. — went

This interpretation would bar 49 as a sentence as it contains a verbal form 'yātaḥ' which ends in a 'sup'-class affix (i. e. is 'subanta' like NP's) rather than a tiN'-class affix.

49. rāmaḥ — yātaḥ
A
r. — went

One distinction between 'tiNanta' and 'subanta' verbal forms, though irrelevant for specifiying case-categories (and this is crucial), relates to gender. The 'tiNanta' verbal form 'ayāt' in 48 is gender-neutral, but the 'subanta'

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26. Bhartṛhari, *Vākyapadīyam*, II-1-2; Iyer, K. A. S., (1969), p. 419 (61-19); Mahābhāṣya of Patañjali under rule II.1.1.; Subrahmanya Sastri, P. S., (1957), vol. V, p. 204 : 'ekatiN-vākyam'

27. Matilal, B. K., (1966), p. 377; Subrahmanya Sastri, P. S., (1957), vol. V, p. 204.

verbal form 'yātaḥ' in 49 is not (cf. sā yātā : she - went). Even the scholars favouring the interpretation of the rule (f. n. 26) to include the 'tiNanta' verbal forms only, would treat 'tiNanta' and 'subanta' as verbal-forms for case-specification.

Thus, the interpretation restricting the rule to 'tiNanta' verbal form only, does not appear to be appropriate, and the relevant rule must be interpreted to refer to verbal form in general. This interpretation would be in keeping with the statement of Patañjali,[28] that there is no sentence which does not contain a verbal form. It is significant that he uses the word 'kriyā' (verb) rather than the word 'tiNanta' (i. e. a form ending in a tiN-affix).

The above-mentioned characteristics of 'asti' (i. e. its optional occurrence in certain constructions, and of a verbal form ending both in 'tiN-class and 'sup'-class of affixes) were picked up by the logicians who differed with the grammarians on accepting a verbal form as a necessary constituent of a sentence. The optional non-occurrence of 'asti' in sentences like 45(b) above, became a strong argument for them. They cited examples like 50[29] to prove their point.

50. trayaḥ - kālāḥ
three - times
(there are three time-stages)

They argued that a verbal form like 'santi' (are) cannot be added (to 50), because 'santi' refers to one time-stage only (i. e. present). Again neither 'āsan' (were i. e. past) nor 'bhaviṣyanti' (will be i. e. future) can be added.

28. 'na - hi - kriyāvinirmuktam - vākyam - asti' quoted in Matilal, B. K., (1966), p. 378 (f. n. 2).

29. Jhalakīkar, B., (1893), p. 668.; Rao, V. S., (1969), p. 13.

Because, either of them refers to one time-stage only. To them, and perhaps to the grammarians also, it would be equally ludicrous to have a sentence like 50′.

50′. trayaḥ - kālāḥ -santi-āsan - bhaviṣyanti
three - times - are - were - will be

Thus, they conclude that the inadmissibility of a verbal form in sentence 50 above, shows that a sentence need not consist of a verbal form. However, in their arguments, the logicians do not take note of either physical reality wherein time may be conceived of as a continuum,[30] or of the fact that the reference to three time-stages and the occurrence of a verbal form like 'santi' (are) in sentence 50 need not pin it down to a particular point of reference (in time) which is simultaneous with the event of speaking. In fact, 50″ is perfectly grammatical and acceptable.

50″. trayaḥ - kālāḥ - santi
three - times - are
(there are three time-stages)

The logicians, in arriving at their conclusion, were also influenced by ontological considerations in addition to the peculiarities of the Sanskrit language (i. e. optional deletion of 'asti' in certain constructions). To them, substance (dravya) was the repository of different properties i. e. qualities, actions.[31] Consider sentences like 51, 52, which have different interpretations for logicians and grammarians.

51. rāmaḥ - vihagam - paśyati
A R
r. - bird - looks
(r. looks at a bird)

30. Mandal, K. K., (1968), pp. 156-73

31. Chatterjee, S., (1967), p. 225 : 'drayva' or substance is the substratum of qualities and actions..'

52. maitraḥ - taṇḍulān - pacati
A O
m. - rice - cooks
(m. cooks rice)

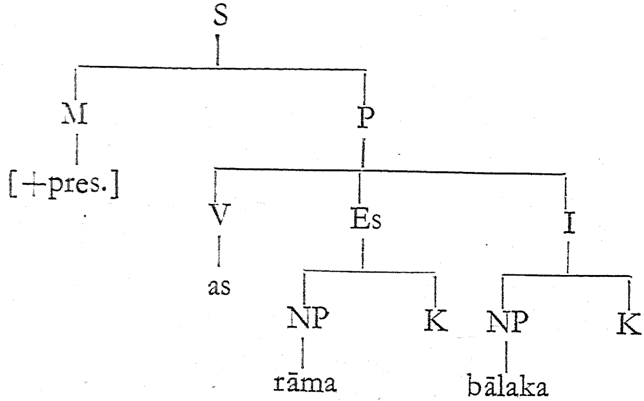
For a logician, the substance-the agent (i. e. rāmaḥ /maitraḥ) is central in the sentences. In other words, sentences primarily refer to 'rāmaḥ'[32] the agent who is 'qualified by effort generating the activity of seeing which has a bird as an object' ('vihaga-karmaka - darśanānukūlakṛtimān rāmaḥ') and the agent 'maitraḥ'[33] who is qualified by the 'effort favourable to softening subsisting in rice' ('taṇḍulaniṣṭhaviklittyanukūla - kṛtimān maitraḥ'). But, Sanskrit grammarians, or perhaps grammarians in general would interpret the sentences, as if, they refer primarily to an action or operation. In other words, to them the action is central in the sentence. Thus, these sentences refer to an action 'of seeing which has bird as object and m. as its doer' ('vihaga - karmaka - darśanānukūla - vyāpāro rāma - kartṛkaḥ'), and to an action of producing softening in rice which has m. as its doer ('taṇḍulaniṣṭhaḥ viklittijanakaḥ maitrābhinnāśrayakaḥ vyāpāraḥ') respectively.[34] Thus, Sanskrit grammarians accept the verb as central to the sentence i. e. as a necessary constituent of it. Logicians, on the other hand, consider that a sentence need not necessarily consist of a verb. In a linguistic analysis, the logicians' approach, based partially on ontological consideration and partly on the interpretation of nature and behaviour of 'asti' in a sentence, is not acceptable.

III. 4. However, one problem remains : how to account for the occurrence of 'asti' (is) in a sentence with the option-

32. Matilal, B. K., (1966), pp. 388-389.
33. Rao, V. S., (1969), pp. 13-19.
34. Rao, V. S., (1969), p. 7 ff.

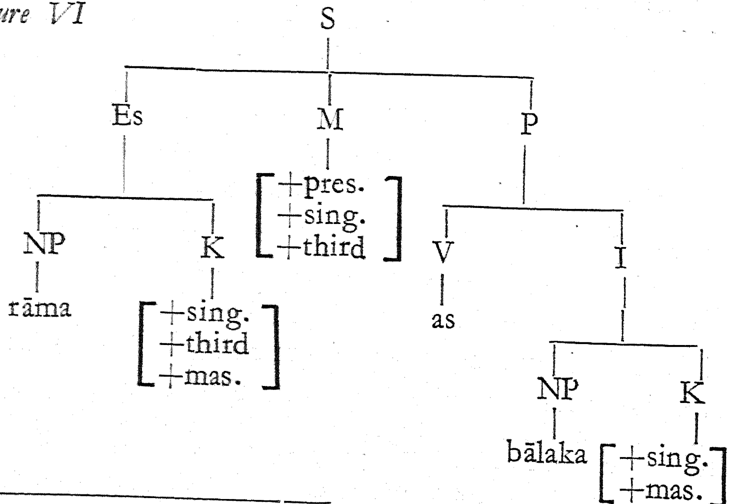
ality of its non-occurrence in the present. Chomsky[35] gives base rules to introduce a copula. Thus, there may be subsequent rules to account for its non-occurrence in certain contexts. Consider a sentence like 2 above which has the underlying structure as in figure V.

Figure V



The subjectivalisation-rule selects Es for agreement with the V, T takes on the features of Es, and the result is as represented in figure VI.

Figure VI



35. Chomsky, N., (1965), p. 107.

The affix-substitution rule replaces features with affixes and the final form is as in figure VIII via figure VII.

Figure VII

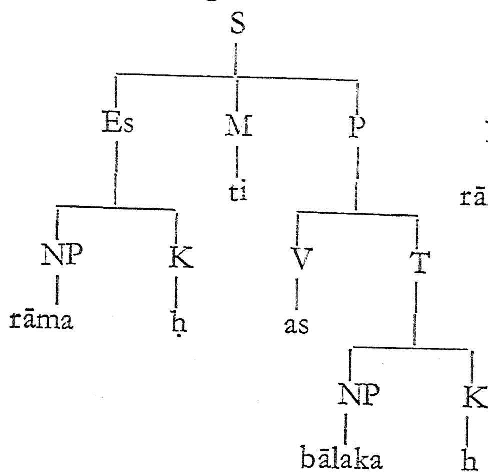
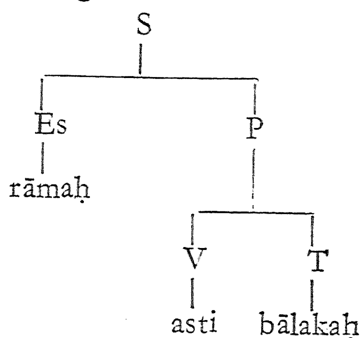
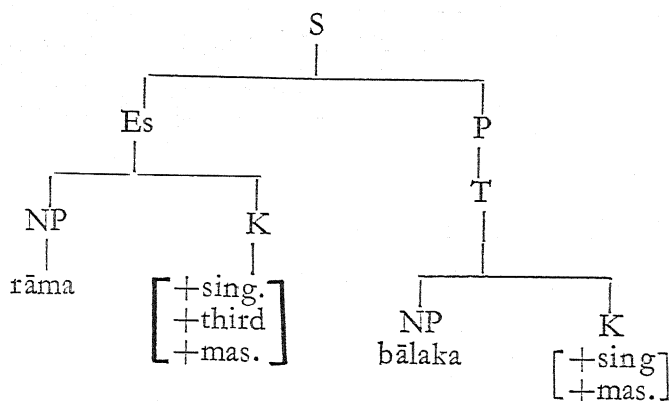


Figure VIII



Alternatively, at the stage of figure VI, a copula-deletion rule optionally deletes the V, as the M shows [+present]. Consequently, the result is as represented in figure IX from figure VI.

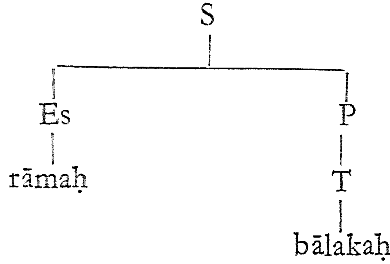
Figure IX



The affix-substitution rule replaces the features with affixes, and the final form (omitting the intervening details) is as

represented in figure X.

Figure X



Bach[36], however, makes the proposal that 'have' and 'be' need not be introduced in the base-component, but may rather be inserted transformationally. It may be mentioned that, in Sanskrit, there is no verb-form comparable to the 'have' of the English, as sentence 37 above indicates.

For English, Bach gives additional evidence in favour of his position. His rules which insert 'have/be' transformationally, also account for reduced attributive clauses[37] like 'I saw the man on the roof'⇐'I saw the man who is on the roof'. But, in Sanskrit, a proposal for transformational insertion of 'asti' based on simultaneous explication of reduced attributive clause cannot be sustained. A sentence like 53 cannot be interpreted as a reduced attributive form of sentence 54.

53. bālakaḥ — dāsam — mārge — apaśyat
D nom R acc L 1
boy — servant — on road — saw
(the boy saw the servant on the road)

36. Bach, E., (1967), pp. 462-485.
37. Bach, E., (1967), pp. 463-466.

54. bālakaḥ — tam dāsam — apaśyat — yaḥ — mārge -
boy — that servant — saw — who — on road
āsīt
was

(the boy saw that servant who was on the road)

In other words, it is difficult to assign a node which would dominate only 'dāsam' and 'mārge' in sentence 53. 'mārge' in sentence 53 is L dominated by P as is any other case-category in the sentence.

It may be argued that a sentence like 54 is ambiguous unless some word-order is assumed and may be interpreted as 54′.

54′. bālakaḥ - yaḥ - mārge - āsīt - tam - dāsam -
boy - who - on road - was - him - servant
apaśyat
saw

(the boy who was on the road, saw that servant)

But, with either of interpretations (54/54′) the indeterminacy of locational reference remains, and the other of the two (i. e. 'bālakaḥ' and 'dāsam') cannot be precluded from sharing the same location. I suspect that even if a reduced form of either 54 or 54′ is possible, it would not be treated as different from 53 above.

Though, a priori, neither of Bach's and Chomsky's proposals can be rejected, there seems to be no evidence elswhere within Sanskrit syntax which would justify the transformational insertion of 'asti' as suggested by Bach. Thus, it appears appropriate to treat 'asti' like any other verb and introduce it in the base-component. Secondly, it is not always the case that 'asti' can be optionally deleted in case the node M shows [+present]. Recall sentence 4′ and its derivation (through figures I-IV), and sentence 2

and its derivation (through figures V-VIII). It has been mentioned that a rule deletes the V optionally (as in figure IX), as the node M shows [+present] (figure VI). But, this rule does not operate with the configuration in figure II as a sentence like 4″ is unacceptable.

4″.* rāmeṇa — chātreṇa
Es i T i
by r. — by student

Thus the V-deletion rule is blocked if the subjectivalisation-rule has not applied (as in sentence 4′.).

Thirdly, in the derivation of some constructions like 46, 47 (as against 45 above), 'asti' must be introduced in the underlying structure, and it does not appear to be profitable to have a treatment for V in the derivation of sentences 3-7 above which is different from the one proposed for sentences 4′, 3″, 5′, 6″ and 46, 47 above. Even if it is argued that it is possible to specify the environment where 'asti' is obligatorily, as opposed to optionally, inserted, it is not clear how it would help, and would add to the complexity of rules without any compensatory advantage elsewhere.

Considering all these arguments, there appears to be no case for not giving a uniform treatment to 'asti' while there is justifiable reason to treat it as any other verb.

III. 5. In this section, the status of 'asti' in sentences which are subject to the process of nominalisation, is examined. Consider sentences 55-58″. It may be noted that sentence 55 does not allow the optional deletion of 'asti' despite the fact that the matrix S (in figure XV), under the node M, shows [+present]. Sentence 55′ is unacceptable.

Sentences 55-58″ are complex as the process of nominalisation is related to embedding of S(IV.3.1). Though this study, as mentioned in the beginning, does not account

for complex structures, this departure is considered necessary to examine such sentences with 'asti' occurring therein.

55. rāmaḥ — gacchan — asti
Es nom VNom nom
r. — going — is
(r. is going)

55′.* rāmaḥ — gacchan
r. — going

55″. rāmeṇa — gacchatā — bhūyate
Es i VNom i
by r. — by going — is become
(it) is become going by r.)

56. bālakaḥ — pustakam — paṭhitavān — asti
Es nom O acc VNom nom
boy — book — having read — is
(the boy has read the book)

56′. bālakaḥ — pustakam — pa ṭhitavān
boy — book — having read
(the boy has read the book)

56″. bālakena — pustakam — paṭhitavatā — bhūyate
Es i O acc VNom i
by boy — book — having read — is become
((it) is become having read the book by the boy)

57. bālakena — pustakam — paṭhitam — asti
A i Es nom VNom nom
by boy — book — read — is

57′. bālakena — pustakam — paṭhitam
by boy — book — read
both=(the book is having been read by the boy)

57″. bālakena — pustakena — paṭhitena — bhūyate
A i Es i VNom i
by boy — by book — by read — is become
(it) is become having been read by the book by the boy)

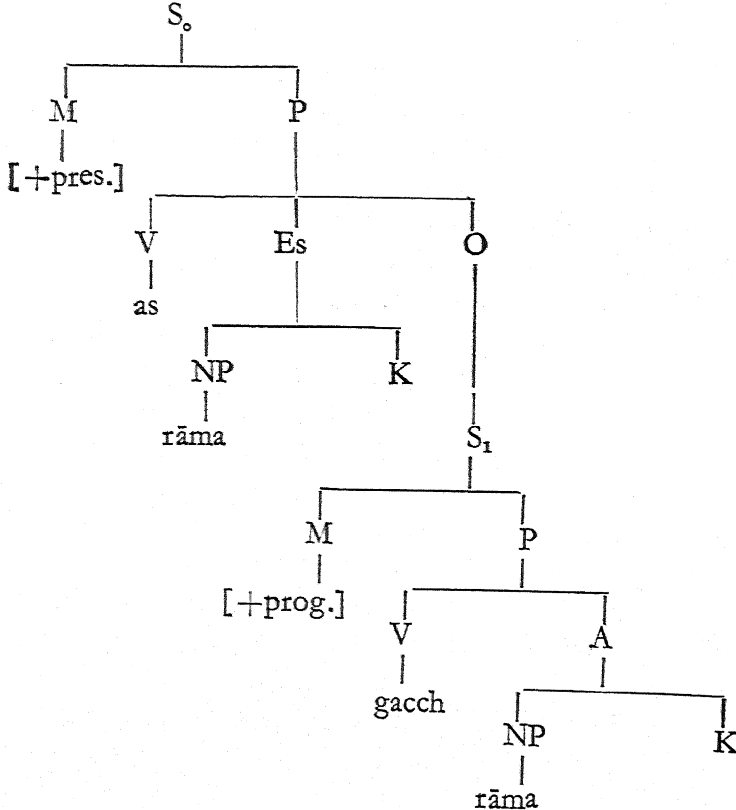
58. pustakam — paṭhanāya — asti
Es nom VNom d
book — to read — is

58′. pustakam — paṭhanāya
book — to read
(both=(the book is for reading)

58″. pustakena — paṭhanāya — bhūyate
Es i VNom d
by book — to read — is become
(it) is become by the book for reading)

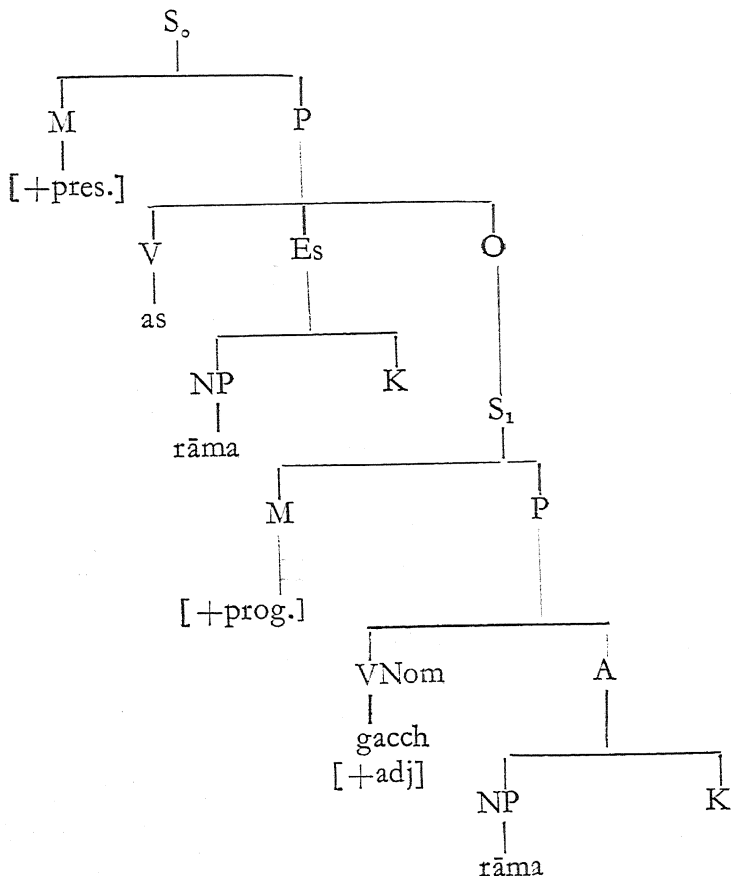
Sentences 55, 55″ have the underlying structure as represented in figure XI.

Figure X



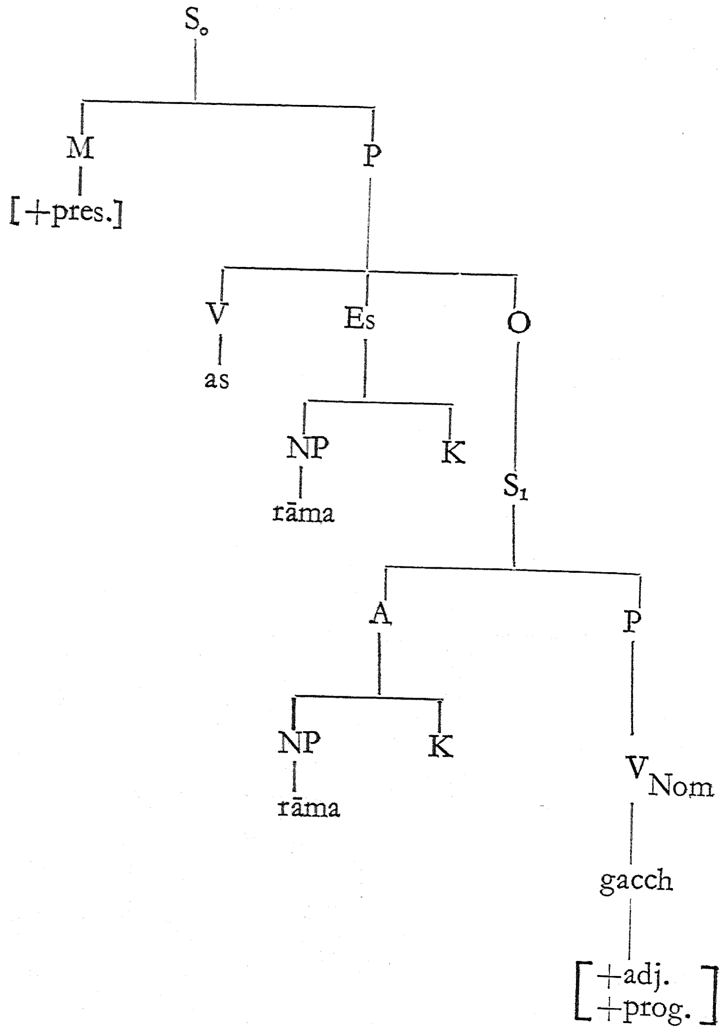
A nominalisation-rule applies and specifies V as VNom and attaches the feature [+adj] to VNom and the result is as represented in figure XI.

Figure XI



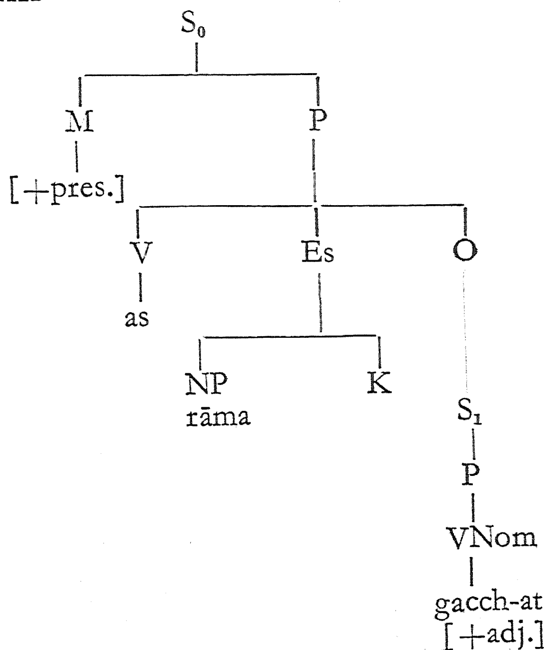
The subjectivalisation-rule selects A (in S_1) for agreement with the VNom. The feature [+prog.] under M is attached to the VNom and the M is deleted. The result is as represented in figure XII.

Figure XII



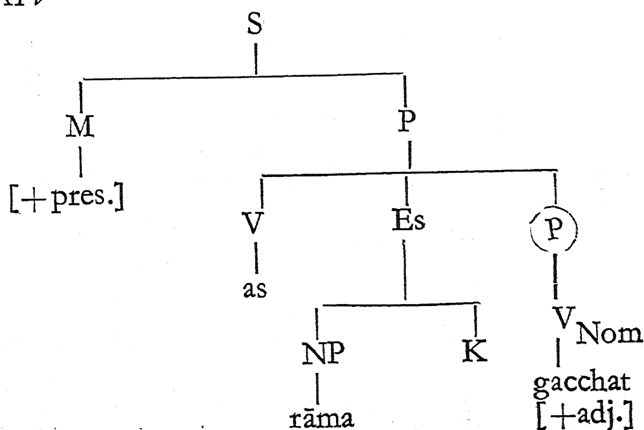
As the V_{Nom} shows the feature [+prog.], the stem-element 'at' is attached to 'gacch' and the feature [+prog.] is deleted. The item under 'A' is deleted under identity. The result is as represented in figure XIII.

Figure XIII



A node-pruning rule [38] deletes the node S^1 and a P-raising rule attaches the P to P in the superordinate S. The result is as represented in figure XIV.

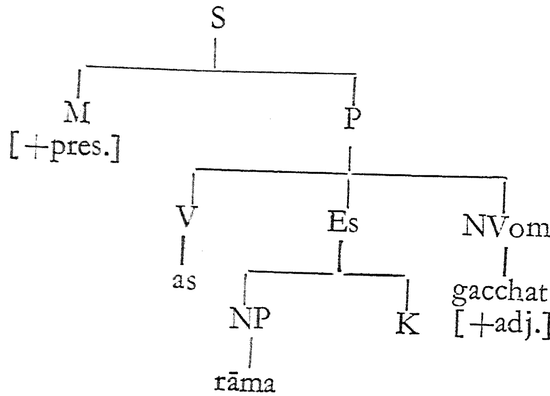
Figure XIV



38. Ross, J. R., (1967), p. 44; (1969), p. 289.

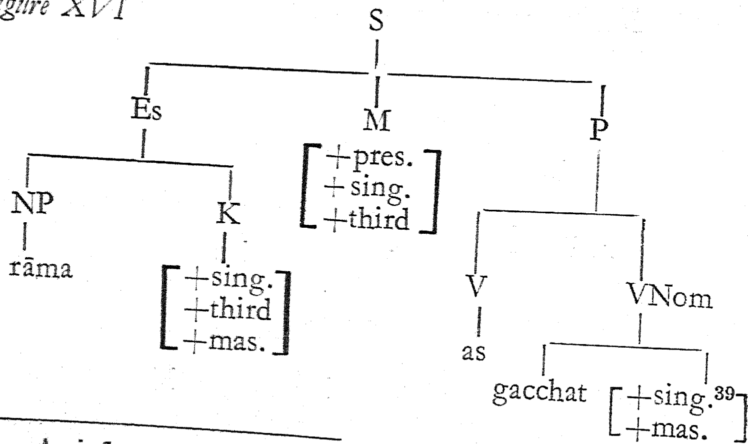
Now, a rule deletes P wherever it is dominated by itself (i.e. P). Thus, the node P(encircled) is deleted, and the result in as represented in figure XV.

Figure XV



Now the subjectivalisation-rule may apply optionally and select Es for agreement with the V. It may be noted that as the VNom shows [+adj], it takes on the features of Es, whether Es is subjectivalised or not. Es is selected for subjectivalisation and the result is as represented in figure XVI.

Figure XVI



39. An informal notation for representing the specification of the verbal features. Some of these will have been introduced by

The affix-substitution rule replaces the features with affixes and the result is as represented in figure XVII. The final form is as given in figure XVIII.

Figure XVII

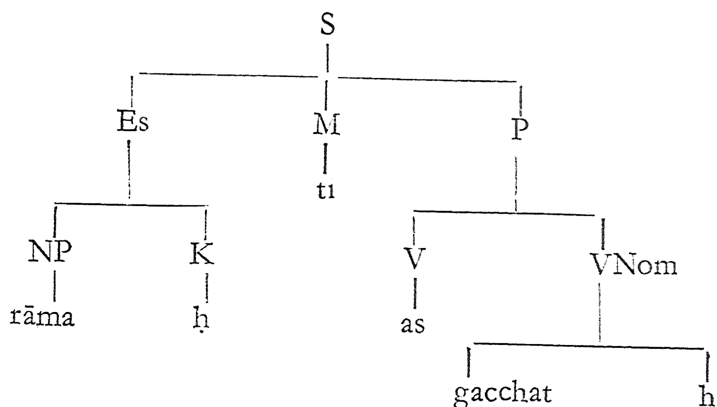
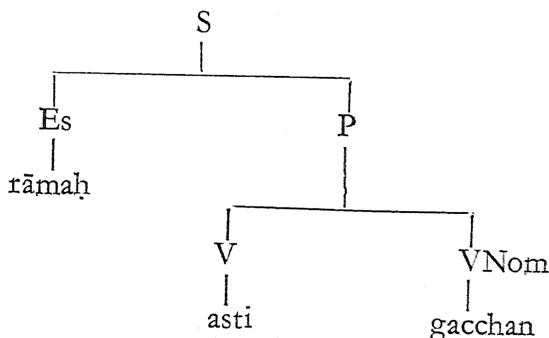


Figure XVIII



It may be noted that the copula-deletion rule cannot apply at the stage of figure XV (cf. figure IX) as the VNom shows the stem-element 'at'.

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phrase-structure rule which rewrites a V as CS (e.g. +V) and some would have been introduced transformationally (e. g. the 'at' in the example is a reflex of transformationally introduced feature [+ prog.].

Alternatively, at the stage of figure XIV, Es is not selected for subjectivalisation and the process of passivisation without subjectivalisation (II. 1. 1.) operates. The final form is as represented in figure XX (from figure XIV) via figure XIX (omitting intervening details).

Figure XIX

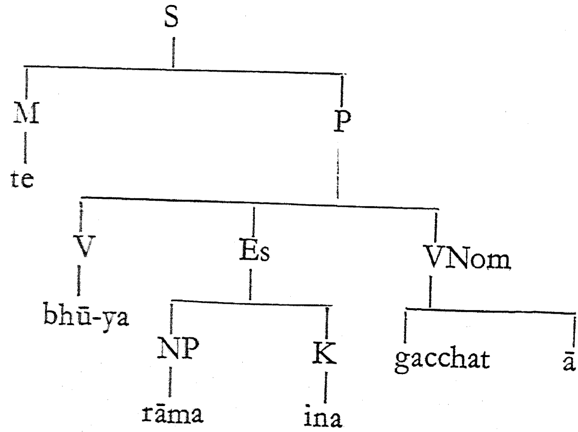
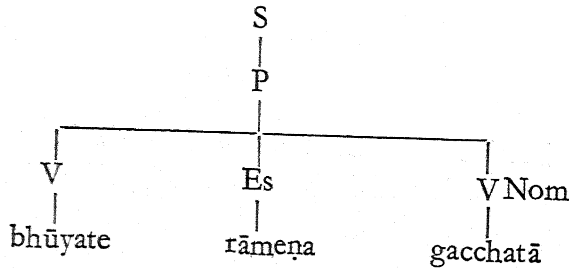
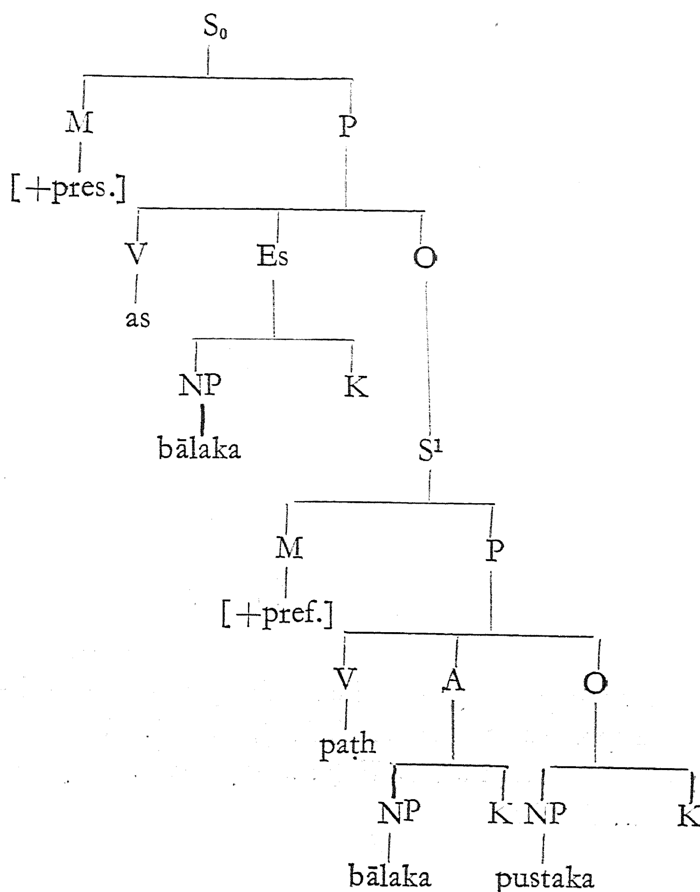


Figure XX



Consider, next, sentences 56, 56′, 56″ which have the underlying structure as represented in figure XXI.

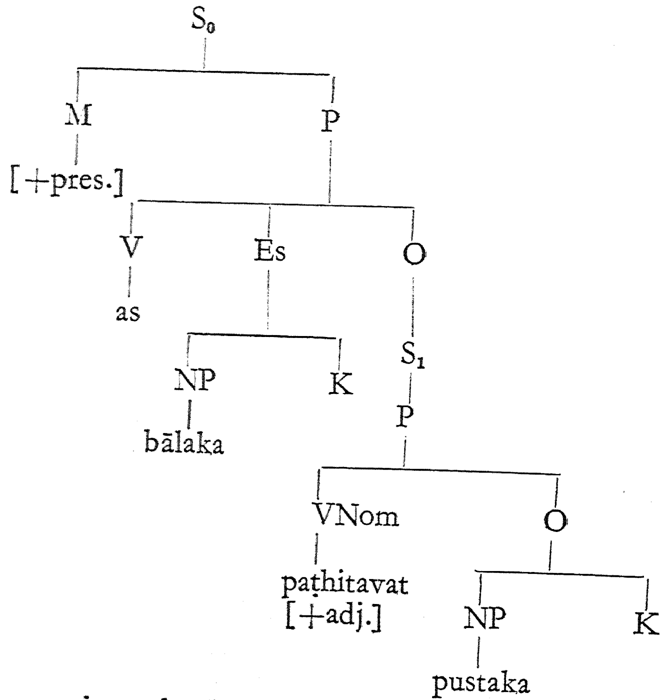
Figure XXI



The nominalisation-rule applies and specifies V as 'VNom' and attaches [+adj.] to VNom, the subjectivalisation-rule selects A for agreement with VNom, the M-deletion rule attaches [+perf.] to VNom and deletes the node M. As the VNom shows [+perf.], stem-element 'tavat' is added to 'path' and [+perf.] is deleted. 'bālakah' under A is deleted under identity (cf. figures XI, XII, XIII).

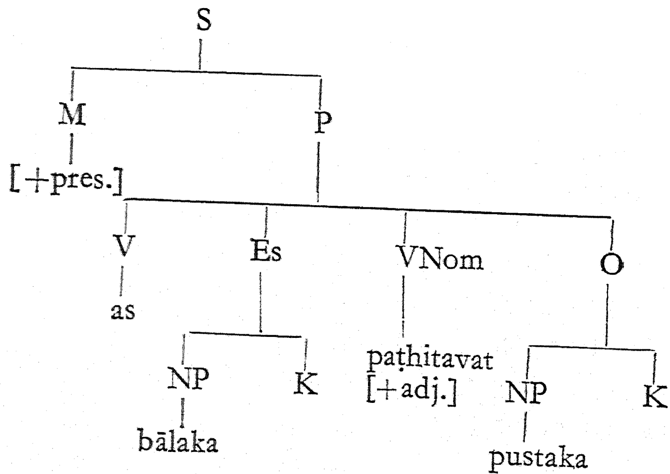
The result is as represented in figure XXII (omitting intervening details).

Figure XXII



The node-pruning rule, the P-raising rule and the P-deletion rule apply (cf. figures XIV, XV), and the result is as representend in figure XXIII (omitting intervening details).

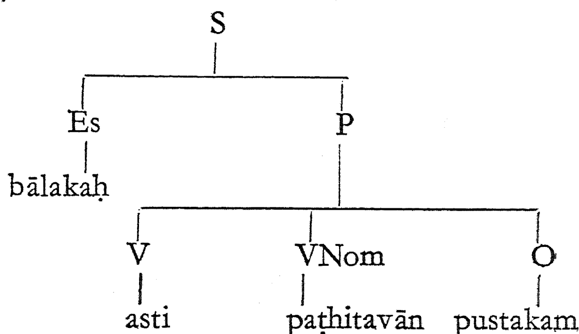
Figure XXIII



The subjectivalisation-rule selects Es for agreement with the V. As mentioned earlier (figure XV), VNom takes on the features of Es, as it shows [+adj], whether Es is subjectivalised or not. Secondly, it may be noted that even if Es is not selected for agreement with the V, O cannot be subjectivalised (i. e. the process of passivisation (II. 1. 1.) cannot operate). Because, in case the subjectivalisation-rule has operated (in embedded S) before P-raising, no case-category which originated therein can be subject to the subjectivalisation rule or the process of passivisation with subjectivalisation after P-raising.

The affix-substitution rule replaces features with affixes and the final form (omitting intervening details) is is as represented in figure XXIV (cf. figures XVI, XVII).

Figure XXIV



The copula-deletion rule may apply optionally, after the subjectivalisation rule has applied (cf. figure VI), and thus sentences 56, 56′ are derived.

Alternatively, at the stage of figure XXIII, subjectivalisation does not apply and the process of passivisation without subjectivalisation operates. The affix-substitution rule replaces features with affixes and the result is as represented in figure XXV (omitting intervening details). The final form is as given in figure XXVI from which sentence 56″

is obtained. [It may be noted that as the subjectivalisation-rule has not applied, the copula-deletion cannot apply.]

Figure XXV

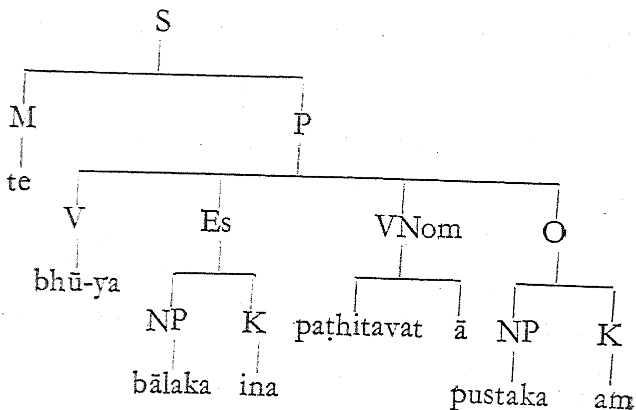
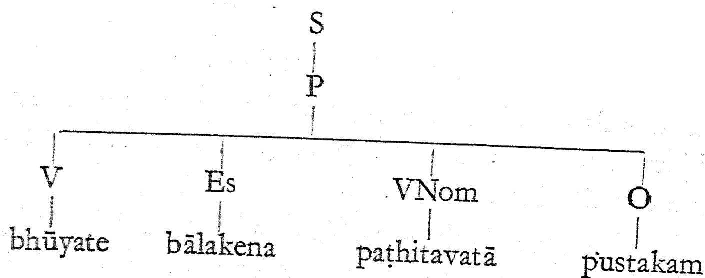
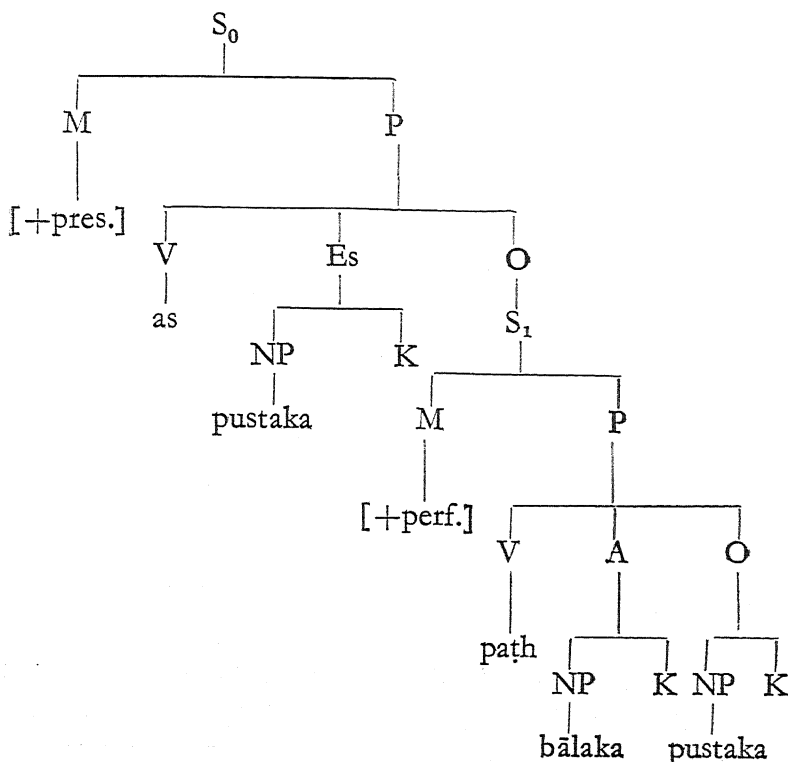


Figure XXVI



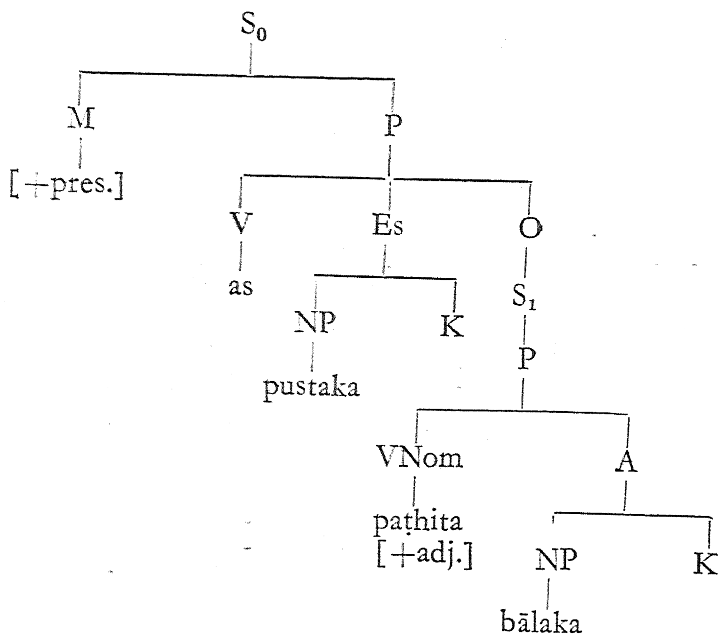
Consider, next, sentences 57, 57′, 57″ which have the underlying structure as represented in figure XXVII.

Figure XXVII



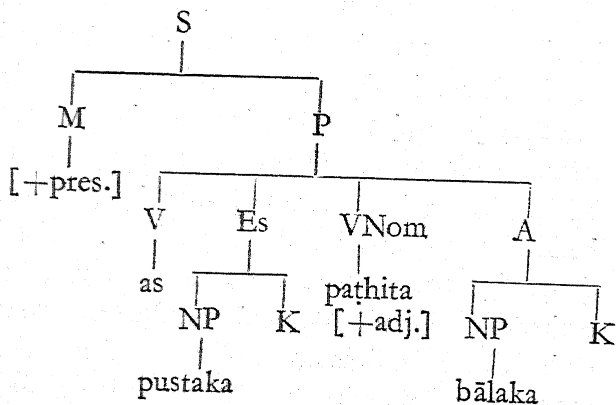
The configuration in figure XXVII is similar to that in figure XXI except that Es dominates 'pustaka' and not 'bālaka' (as in figure XXI). The nominalisation-rule applies and attaches [+adj.] to VNom in the embedded S, the subjectivalisation-rule selects O for agreement with the VNom, the M-deletion rule attaches [+perf.] to VNom in the embedded S and deletes the node M. As the VNom shows [+perf.], the stem element 'ta' is added to 'paṭh' in the embedded S and [+perf.] is deleted. 'pustaka' in the embedded S is deleted under identity. The result is as represented in figure XXVIII (omitting intervening details).

Figure XXVIII



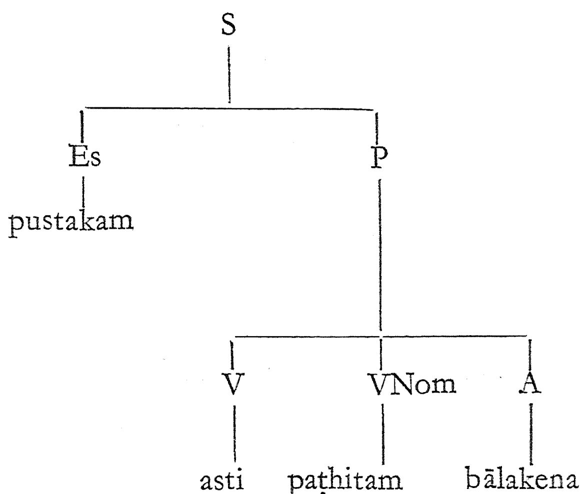
The node-pruning rule, the P-raising rule and the P-deletion rule apply (cf. figures XIV, XV), and the result (omitting intervening details) is as represented in figure XXIX.

Figure XXIX



The subjectivalisation rule may or may not select Es for agreement with the V. But, as mentioned earlier (figure XXIV), A cannot be subjectivalised. Es is selected for subjectivalisation, the affix-substitution rule replaces features with affixes. The final form is as represented in figure XXX (omitting intervening details).

Figure XXX

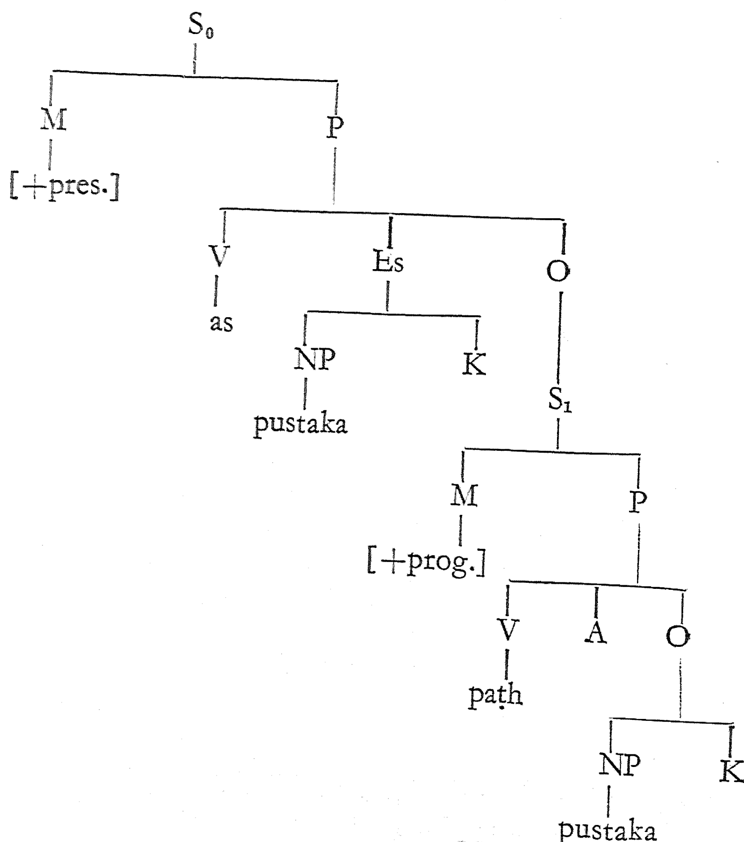


The copula-deletion may apply optionally after the subjectivalisation-rule has applied, and thus sentences 57, 57″ are derived.

Alternatively, if at the stage of figure XXIX Es is not selected for subjectivalisation, the process of passivisation without subjectivalisation operates, and through a derivation similar to that in figures XXV, XXVI, sentence 57″ is derived.

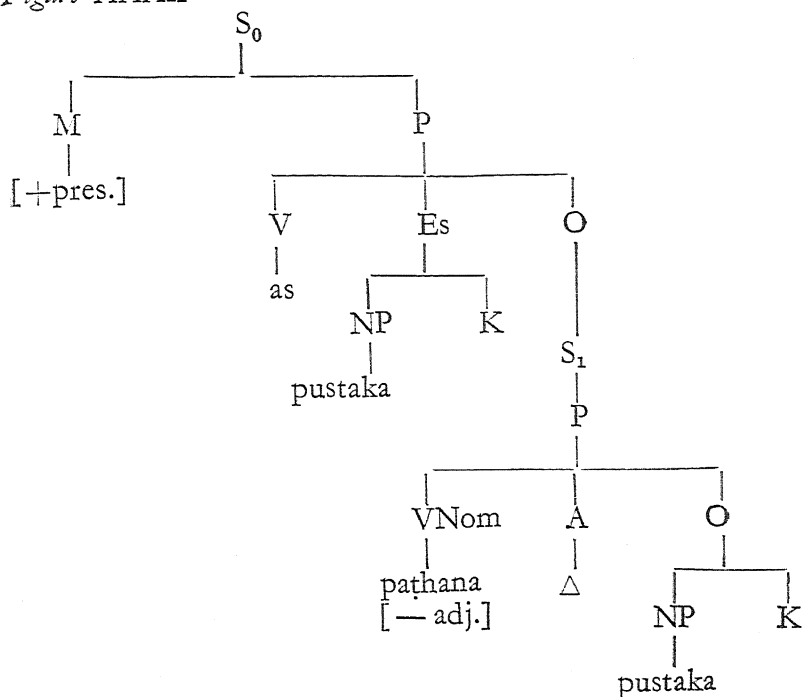
Consider, next, sentences 58, 58′, 58″ which have the underlying structure as in figure XXXI.

Figure XXXI



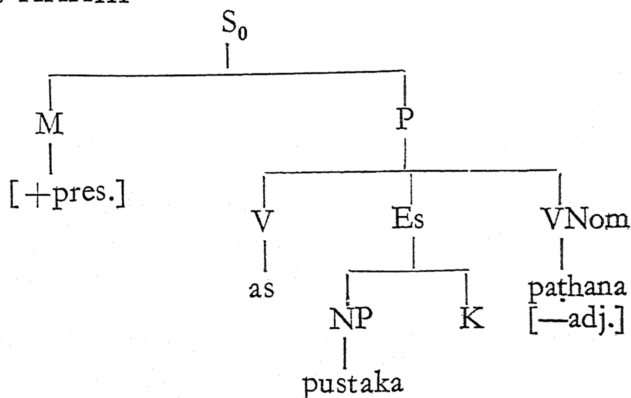
The nominalisation-rule specifies V as VNom and the subjectivalisation-rule, being optional, does not apply. Whenever subjectivalisation does not operate, the M node is deleted. The stem-element 'ana' is added to 'paṭh' in the embedded S. The result (omitting intervening details) is as represented in figure XXXII.

Figure XXXII



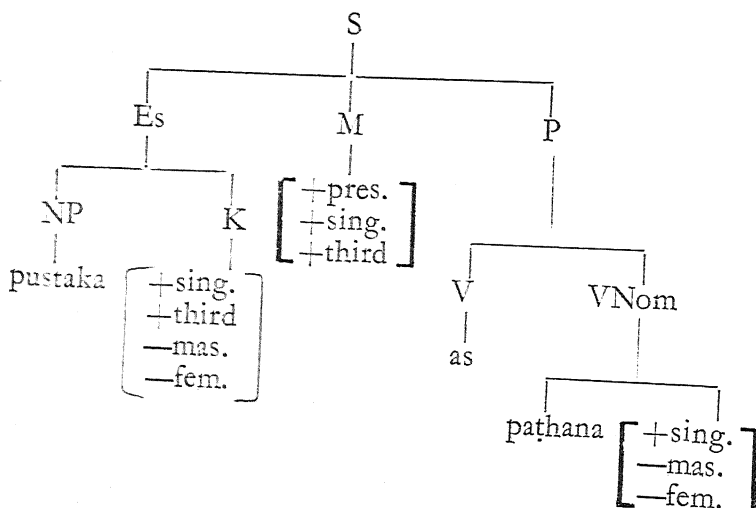
'pustaka' in S is deleted under identity, the dummy A is deleted, the node-pruning rule deletes the node S_1, the P-raising rule and the P-deletion rule apply, and the result is as in figure XXXIII (omitting intervening details).

Figure XXXIII



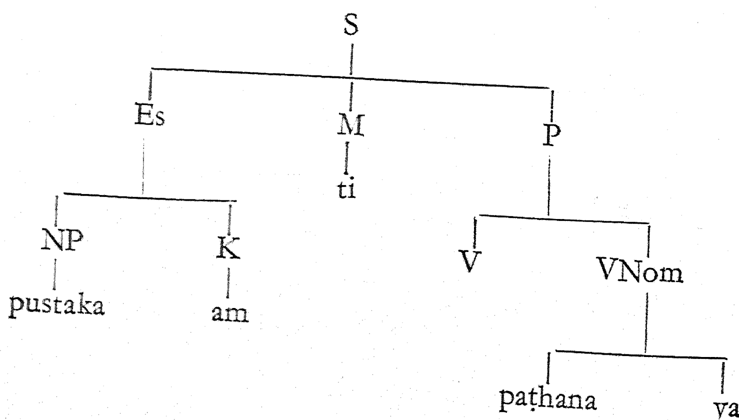
The subjectivalisation-rule selects Es for agreement with the V. It may be noted that the VNom shows [—adj.] and, hence it cannot take on the features of any case-category. The result is as in figure XXXIV.

Figure XXXIV



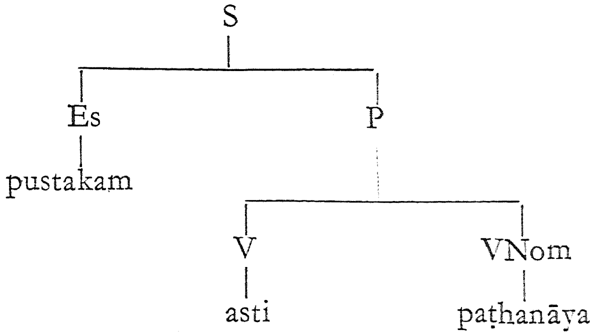
The affix-substitution rule replaces the features with affixes. [A morphophonemic rule attaches d(ative) to 'paṭhana' under VNom.] The result is as represented in figure XXXV.

Figure XXXV



The final form is as in figure XXXVI.

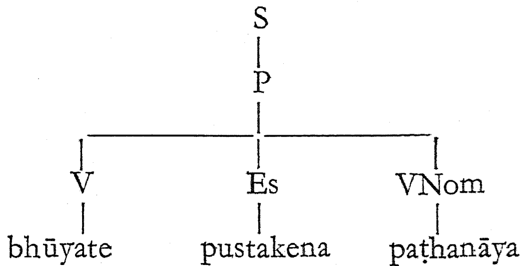
Figure XXXVI



The copula-deletion rule may delete the V after the subjectivalisation rule has applied. Thus sentences 58, 58′ are derived.

Alternatively, if at the stage of figure XXXIII, Es is not subjectivalised, the process of passivisation without subjectivalisation operates, and the final form is as represented in figure XXXVII (omitting irrelevant details).

Figure XXXVII



Thus, sentence 58″ is derived from figure XXXVII.

III. 6. The rules that operate in the derivation of the above sentences are as follow :

1. A Nominalisation rule specifies V as VNom and attaches [± adj.] to the item under VNom.

2. A Subjectivalisation-rule applies optionally and selects a case-category for agreement with V/VNom. However, on the last cycle, the subjectivalisation-rule cannot select any case-category which has originated in an embedded sentence. But, VNom may be subjectivalised in case the subjectivalisation-rule has not applied to the configuration wherein VNom originated.

3. A M-deletion rule operates as follow :

   (i) if rule 2 has applied, the feature under M is taken on by the VNom and the node M is deleted;

   (ii) if rule 2 does not operate, the feature under M is not taken on by VNom and the node M is deleted.

4. A Copula-deletion rule applies on the condition that subjectivalisation has taken place, and deletes optionally,

   (i) the copula under V if M shows [+pres.] and if there is a VNom also, it does not show the stem-element 'at';

   (ii) the copula under VNom if it shows [+prog.].

5. A P-raising rule attaches P in the embedded S, to the P in the superordinate S.[40]

6. A P-deletion rule deletes the node P if it is dominated by itself (i.e. P)[40].

7. An Affix-substitution rule replaces the features with affixes.

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40. These rules may be dispensed with, in case the scope of the node-pruning rule is extended to delete the case-category dominating S and P as well. (Cf. Kiparsky, P. & J. F. Staal, (1969), p. 101 (figure 13)).

IV

GENITIVE CONSTRUCTIONS

IV. 1. This chapter deals with 'Genitive'[1] which refers to a surface-phenomenon rather than to a case-category in the Fillmorian sense. As explained later in this chapter, the Genitive is derived from so many diverse sources that it is considered appropriate to discuss them together with reference to their surface-forms. By 'Genitive' is meant an NP with the marker 'sya' (i. e. 'genitive') and its variants[2]. Thus, the Genitives i.e. NP's underlined in sentences 1-4 indicate the main range of different realisations of 'sya' (i.e. genitive).

1. *bālaka-sya* — pustakam
   G g
   of boy — book
   (boy's book)
   [the NP 'bālaka' is [+masculine] and ends in a vowel.]

2. *bālikā-yāḥ* — sundaratā
   G g
   of girl — beauty
   (girl's beauty)
   [the NP 'bālikā' is [+feminine] and ends in a vowel.]

---

1. G(enitive) refers to constructions with g(enitive) inflexion.
2. The marker 'sya' is a cover term for its variant forms, occurrence of which depends on whether the NP has the feature [+mas.] / [+fem.] / [—mas. / —fem.] and whether it ends in a vowel or consonant.
   The terms vowel and consonant are used as referring to phonological units and as defined in Sanskrit texts.

3. *madhu-naḥ* — madhuratā
G g
of honey — sweetness
(honey's sweetness)
[the NP 'madhu'is [— mas. / — fem.] and ends in a vowel.]

4. *vidyārthin-aḥ* — āgamanam
G g
of student — coming
[the NP'vidyārthin' is [+masculine] and ends in a consonant.]

IV. 2. The later Sanskrit commentators[3] did not assign a case-category to Genitive; though they included it in the section dealing with the 'kāraka's. Pāṇini's governing rule 'ṣaṣṭhī śeṣe' (sixth (case-affix i. e. genitive) in the rest)[4], has led to controversy among the Sanskrit commentators and grammarians with regard to its interpretation. In the first instance, they have tried to show that 'ṣaṣṭhī' indicates a 'kāraka'-relation as in 'rājñaḥ - puruṣaḥ (king's man)[5]. Then they try to interpret the term 'śeṣe'[5] also as a 'kāraka.' So

3. Bhaṭṭojidīksita (1700 A. D.).
4. Pāṇini, II. 3. 50.
5. Iyer, K. A. S., (1969) pp. 324-325; : 'the relation of master and servant in the expression 'rājñaḥ - puruṣaḥ : the king's man, implies a previous relation of action and accessory or rather of donor and recipient between the two [It is difficult to accept this assignment of 'donor-recipient' property to NP's 'rājñaḥ', and 'puruṣaḥ' as instrumental in establishing a kāraka - relation. In a sentence like 'rājā - puruṣam - ādiśati" (king-to man-orders), the same relation of master-servant (or master-recipient) obtains, but the kāraka-relation is of 'kartā-karma' (in relation to the verb ādiśatibsk) and that is how the relation of master and servant also becomes a kind of 'kāraka' indirectly. The previous relation of master and servant is the cause and the later relation of master and recipient is the result. When the previous

far so good. But the difficulty creeps in, when they interpret the one and try to bring the other in conformity with it. Thus they stretch their imagination to show that the relation between master and servant or part and whole is a kāraka-relation and is 'śeṣa' as well. It appears that this is where they have gone wrong. Their effort to show 'rājñaḥ-puruṣaḥ (king's man) as denoting a 'kāraka'-relation (f. n. 5) becomes roundabout, and definitely comes up at a level different from the one that would be assigned to 'kāraka's by Pāṇini. Bhartṛhari has gone to the extent of postulating a 'śeṣa-kāraka' in structures like 'rājñaḥ-puruṣaḥ', and, as a result of it, his discussion tends to be metaphysical.[6] Thus, there appears to be a fair amount of indeterminacy with regard to the sphere

special relation is not meant to be conveyed as shown by the fact that the action on which it was based is not mentioned at all, a very general relation is all that remains and that is what is meant by 'śeṣa'... the relations expressed by the sixth case are those of part-whole and procreator and offspring and are the result of previous actions and not mentioned in the sentences, actions in which these objects were accessories. That previous status lingers somewhat in the present status and that is why the present status which is 'śeṣa' is looked upon as a kind of 'kāraka' though its relation with the action expressed in the sentence is rather remote... 'though it is not a 'kāraka' - relation, it is preceded by or rather it involves a 'kāraka' - relation.'

6. Iyer, K. A. S., (1969), p. 529 : 'tathā-hi-rajñaḥ - purusaḥ- vṛkṣasya - śākhā, paśoḥ-pādāḥ, pituḥ-putraḥ - ityādau āśrūyamāṇakriyāviṣaye - svasvāmibhāvāvayavāvayavibhāvajanyajanakabhāvādau-sambhave - dədātisthitijanmādikriyāprabhāvitepūrvabhāvikārakatvam - uttarāvasthāyām - api - anugatamitibhavatyeva - śeṣaḥ - kārakam' .. 'kriyākārakapurvakaḥ ityanena - kārakatvam - vyācaṣte - śeṣasya.'

and interpretation of the Genitive.[7] In so far as the transformational model is concerned, it may be safely claimed that the Genitive in Sanskrit has not been discussed in any detail. Kiparsky and Staal have discussed the 'kāraka's and mentioned the Genitive in the list. But they also have left it without any discussion.[8]

IV. 3. The Genitive in Sanskrit (i.e. NP with a marker 'sya', f. n. 1) can be related to four types of constructions as in sentences 5′-8′, 9, 9′.

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7. Vāmana-Jāyāditya, vol. II, pp. 209-11 : 'karmādibhyaḥ - anyaḥ - prātipadikārthavyatiriktaḥ - svasvāmibhāvādisambandhaḥ - śeṣaḥ - tatra - ṣaṣṭhī - vibhaktiḥ-bhavati'... whatever is not covered by the rules governing kāraka-relations and the rule II. 3. 46, is śeṣa and takes genitive. Cf. Patañjali - (ed.) Kielhorn, F., (1892) vol. I. p. 463. Cf. Pāṇini - (ed.) Vasu, S. C., (1891) vol. I, p. 296. Cf. Speijer, J. S., (1886), P. 82 (f.n. 1) : 'kāś on I. 1. 49 'bahavaḥ - hi - ṣaṣṭhyarthāḥ - svasvāmyanantarasamīpasamūhavikārāvayavādyāḥ' - Pāṇini seems to have not sharply defined the genitive's sphere of employment, at least if we explain his Sūtra (rule) II. 3. 50 'ṣaṣṭhī-śeṣe' with the 'kāśikā,' as meaning 'in all other instances (namely if none of the other cases taught (II. 3. 1-49) be available), one should use the sixth case'. But then it is strange, Pāṇini has not said inversely 'śeṣe-ṣaṣṭhī' (cf. his constant use I. 4. 7.; I. 4. 108; II. 2. 23; III. 3. 151; VII. 2. 90). Now Patañjali gives a somewhat different explication ... 'karmādīnām - avivakṣā - śeṣaḥ' : 'the sixth case is required, if the categories object and the rest are not to be distinctly expressed' but tacitly Implied' Cf. Bhaṭṭojidīkṣita (ed.), Roy, S. (1920), p. 70-71 : 'śeṣa' is 'other than what is said', 'what remains tō discuss' etc. The 'kāraka's and the sense of a 'prātipadika' have been discussed. Hence such relations as that of the possessor and the possessed yet remain to speak of. These relations will be expressed by the the 'ṣaṣṭhī vibhakti'.

8. Kiparsky, P. and J. F. Staal, (1969) pp. 83-117.

(i) In sentences 5′-8′ the Genitive is a mere alternative surface-realisation of a case-category normally realised by different morphological forms, as compared with sentences 5-8.

5. sa — priyām — smarati
D R acc
he — beloved — remembers

5′. sa — priyāyāḥ — smarati
D R g
he — of beloved — remembers
both = (he remembers his beloved)

6. chātraḥ — guroḥ — caraṇau — bhajate
A G g O acc
student — of teacher — feet — worships

6′. chātraḥ - guroḥ - caraṇayoḥ - bhajate
A G g O g
student - of teacher - of feet - worships
both=(the student worships his teacher's feet)

7. bālakaḥ - phalaiḥ - tṛpyati
D I i
boy - with fruits - feels contentment

7′. bālakaḥ - phalānām - tṛpyati
D I g
boy - of fruits - feels contentment
both=(the boy feels contentment of fruits)

8. dyūtakaraḥ - śatam - pratidīvyati
A O acc
gambler - hundred - gambles

8′. dyūtakaraḥ - śatasya - pratidīvyati
A O g
gambler - of hundred - gambles
both= (the gambler gambles hundred (pieces of money)

(ii) In sentence 9, the genitive is derived through the process of nominalisation[9] from an underlying case-category, thus 9 is transformationally related to sentence 9′.

9. lekhasya - racakaḥ - guruḥ - āsīt
F g VNom A
of article - writer - teacher - was
(the teacher was the writer of the article)

9′. lekham - aracayat - guruḥ
F acc A
article - wrote - teacher
(the teacher wrote the article)

(iii-iv) In sentences 10--11, the Genitive is related to what Fillmore would call alienable and inalienable possession[10]. Following Fillmore, the Genitive in sentence 11 may be developed according to the schema NP→ N(S)[11]. But, in sentence 10, the Genitive would not be developed in this way. Discussion of sentences like 10, 11 is taken up later (IV. 3. 2.).

10. tasyāḥ - vadanam - sundaram - asti
G g E nom T nom
her - face - beautiful - is
(her face is beautiful)

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9. Nominalisation as a process is related to sentence--embedding (excluding relative structures), the embedded S being dominated by a case-category. The process of nominalisation in regard to 'NP-asti-NP' sentences has been analysed in III. 5. It may be argued that sentences like 9 have a claim to be included in the same chapter (i.e. III). But, as they contain Genitives as well, they are better taken up in this chapter. I have not assigned a case-category to 'racakaḥ' (writer) in sentence 9. It is proposed that VNom need not be assigned a case-category in NP-asti-NP sentences or elsewhere.

10. Fillmore, C. J., (1968a), pp. 61-81. Cf. Chomsky, N, (1970a), pp. 200ff.

11. Fillmore, C. J., (1968a), p. 66.

11. tasyāḥ - bhavanam - sundaram - asti
G g E nom T nom
her - house - beautiful - is
(her house is beautiful)

Constructions of the type exemplified in sentences 5′-8′ will not be discussed in this section. These relate to surface-inflexional realisations of the same case-category and can be handled by appropriate affix-assigning rules. The remaining of the above-mentioned constructions (i.e. 9-11) will be discussed below.

IV. 3. 1. As mentioned above, sentences like 9 are related to the process of nominalisation, and the Genitive in such constructions is derived from an underlying case-category transformationally. There have been arguments,[12] following Chomsky,[13] that as the transformational derivation of nominals does not operate systematically in the case of derived and gerundive nominals, the Genitive in both constructions cannot be treated in the same way. In other words, the Genitive of gerundive nominals needs to be derived in a different way from all others. But in Sanskrit (f.n. 13), the process of nominalisation can be transformationally related to underlying structures in a systematic manner. A sentence containing a nominal would be derived from a deep-structure involving specific case-categories and

12. Stockwell, R. P. et al. ,(1968), pp. 530-536, 712.

13. Chomsky, N., (1970a), pp. 184-221. Chomsky makes a distinction between two types of nominalisation gerundive nominal and derived nominal (e. g. J.'s refusing the offer vs. J's refusal of the offer), which differ in respect of (i) 'productivity of the process in question', (ii) the generality of the relation', (iii) and 'the internal structure of the nominal phrase'. The dichotomy is not of much consequence in so far as nominalisation in Sanskrit is concerned.

the Genitive in the former would derive ultimately from a case on the verb in the underlying structure. Thus, a good number of Genitives (in relation to nominals which are morphologically related to verbs in underlying structures) can be traced back to cases. In sentence 9′ above, the Genitive 'lekhasya' (of article) is the alternative realisation of the case-category F (in sentence 9), conditioned by the VNom 'racakaḥ' (writer).

IV. 3. 1. 1. In this section, the constructions exemplified in sentence 9 (or in other words structures containing Genitives and related to the process of nominalisation) are described through their derivation. Sentences 12, 13 are described in detail. Sentences 14, 15 are described with respect to those details which differ from that of 12, 13. Sentences 12′-15′ are alternative realisations due to the non-operation of the subjectivalisation-rule which has been referred to earlier, and hence need not be taken up again.

12. anudāradalasya - netā - harimohanaḥ - yāti
G g VNom A nom
of Conservative party - leader - h. - goes
(h., the leader of the Conservative party, goes)

12′. anudāradalasya - netrā - harimohanena - yāyate
G g VNom i A i
of Conservative party - by leader - by h. - is gone
((it) is gone by h. the leader of the Conservative party)

13. prabhuḥ - sevakasya/sevakena - aśvasya - nagarāya/
A nom G g i G g GO d
master - of servant/by servant - of horse - for city
nagaram - nayanam - ādiśati
GO acc VNom acc
to city - leading - orders

(the master orders the leading of the horse by the servant to the city)

13′. prabhuṇā - sevakasya/sevakena - aśvasya - nagarāya/
A i G g i G g GO g
by master - of servant/by servant of - horse-for city/
nagaram - nayanam - ādiśyate
GO acc VNom nom
to city - leading - is ordered
(the leading of the horse to the city by the servant is ordered by the master)

14. pathikasya - jalasya - pipāsā - avardhata
G g G g VNom nom
of traveller - of water - desire to drink - increased
(the desire of the traveller to drink water increased)

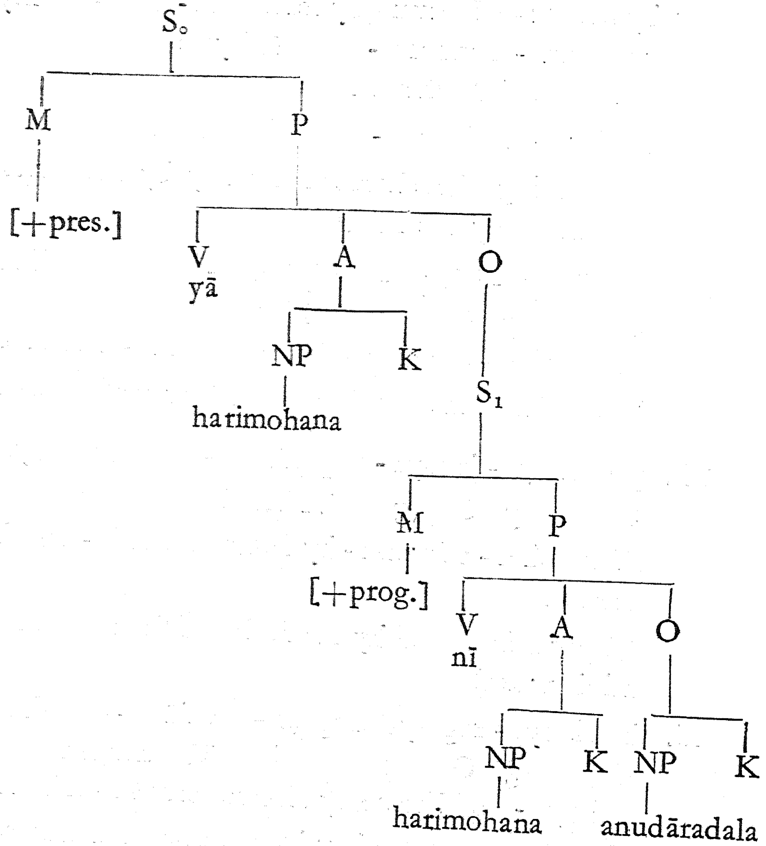
14′. pathikasya - jalasya - pipāsayā - avardhyata
G g G g VNom i
of traveller - of water - by desire to drink - was increased
((it) was increased by the desire of the traveller to drink water)

15. bālakasya - rogasya / rogeṇa - rujā - vardhate
G g G g i VNom nom
of boy - of disease/by disease-torment - increases
(the torment of the boy by the disease increases)

15′. bālakasya - rogasya/rogeṇa - rujayā - vardhyate
G g G g i VNom i
of boy - of disease/by disease - by torment - is increased
((it) is increased by the torment of the boy by the disease)

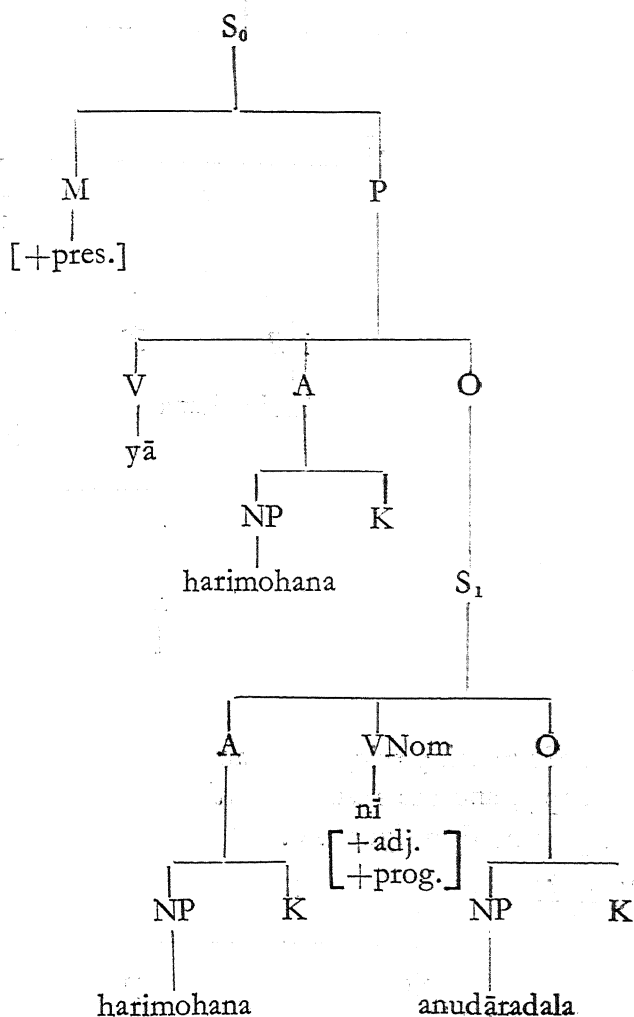
Sentences 12, 12′ have the underlying structure as in figure I.

Figure I



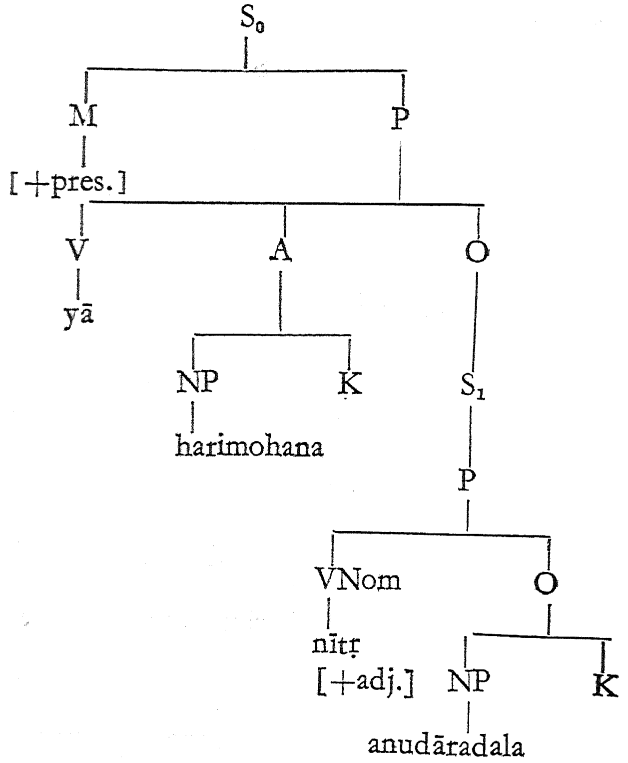
The nominalisation-rule specifies V as VNom and attaches the feature [+adj.] to VNom in S_1. A in S_1 is subjectivalised. The feature [+prog.] is attached to VNom and the node M is deleted. The result is as represented in figure II (omitting irrelevant details.)

Figure II



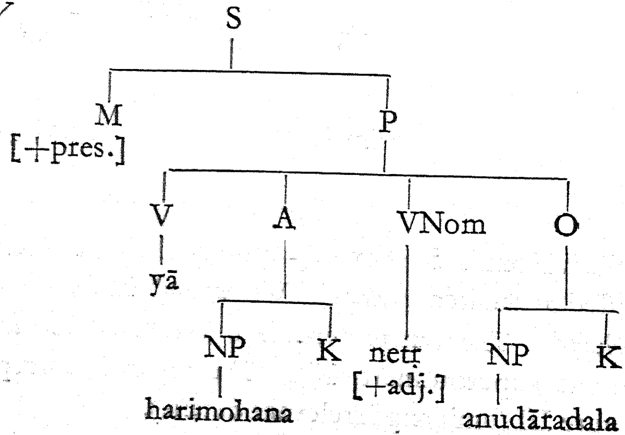
As the VNom in S_1 shows [+prog.] the stem-element 'tṛ' is added to the item under the VNom and the feature [+prog.] is deleted. The item under A in S_1 is deleted under identity with the superordinate NP. The result is as represented in figure III (omitting irrelevant details).

Figure III



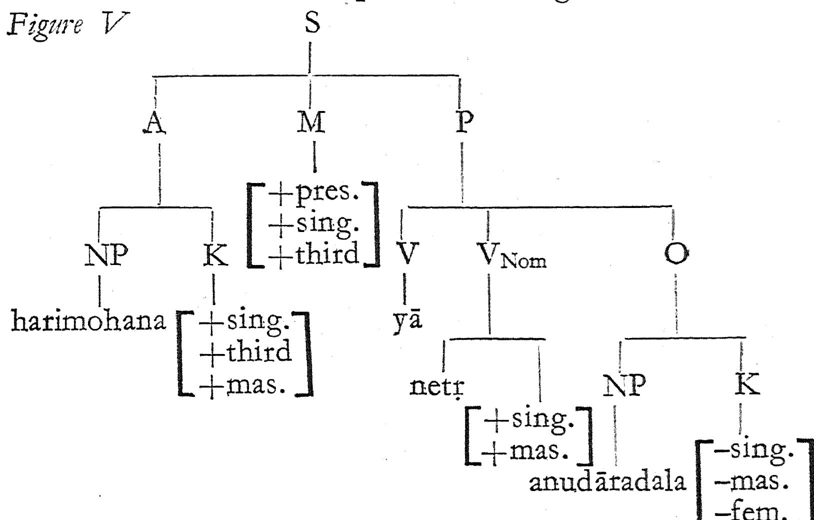
The node-pruning rule, the P-raising rule and the P-deletion rule apply, and the result (omitting intervening details) is as represented in figure IV.

Figure IV



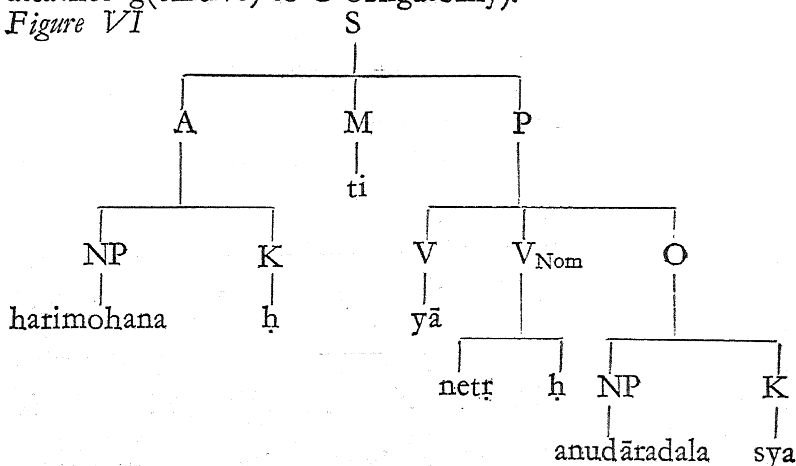
The subjectivalisation-rule may or may not select 'A' for agreement with the V, but the V_{Nom} will take on the features as it shows [+adj.]. Secondly, even if A is not selected for subjectivalisation, the process of passivisation cannot operate and O cannot be selected for agreement with the V (see figure XXIV, III. 5). A is selected for subjectivalisation and the result is as represented in figure V.

Figure V



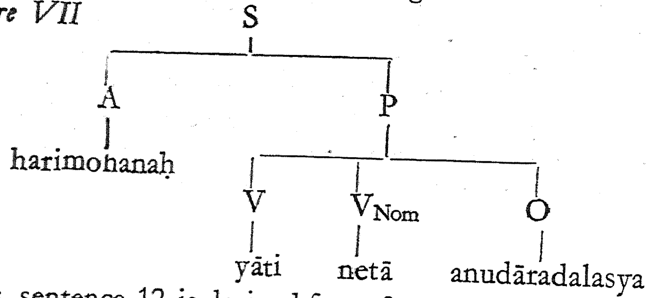
The affix-substitution rule replaces the features with affixes and the result is as in figure VI (a morphophonemic rule attaches g(enitive) to O obligatorily).

Figure VI



The final form is as represented in figure VII.

Figure VII

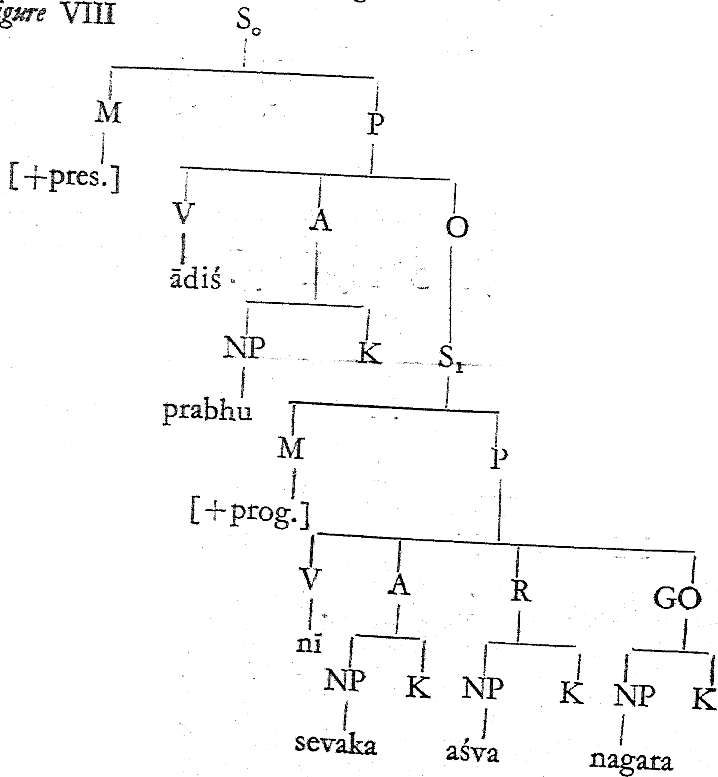


Thus, sentence 12 is derived from figure VII.

Alternatively, at the stage of figure IV, if A is not selected for subjectivalisation, the process of passivisation without subjectivalisation operates (see II. 1. 1.) and sentence 12 is derived.

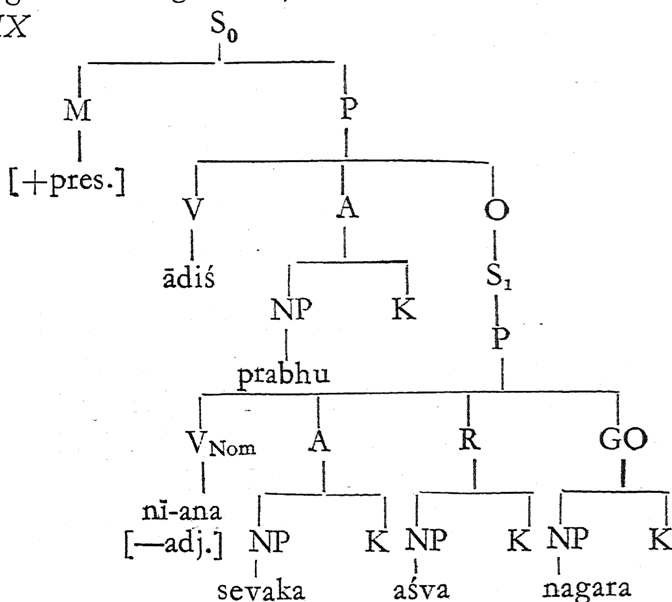
Consider, next, sentences 13, 13′ which have the underlying structure as in figure VIII.

Figure VIII



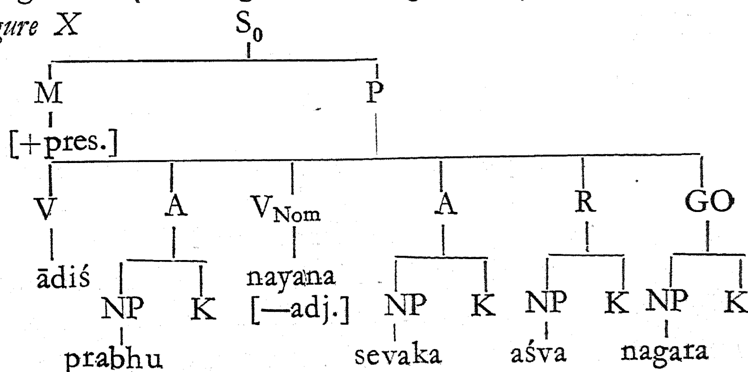
The Nominalisation-rule specifies V as V_{Nom} and attaches the feature [—adj.] to V_{Nom} (in S_1), the subjectivalisation-rule does not operate, the M-deletion rule deletes the node M, the stem-element-'ana' is added to the item under V_{Nom}. The result is as represented in figure IX (omitting intervening details).

Figure IX



The node-pruning rule deletes the node S_1, the P-raising rule and the P-deletion rule apply, and the result is as represented in figure X (omitting intervening details).

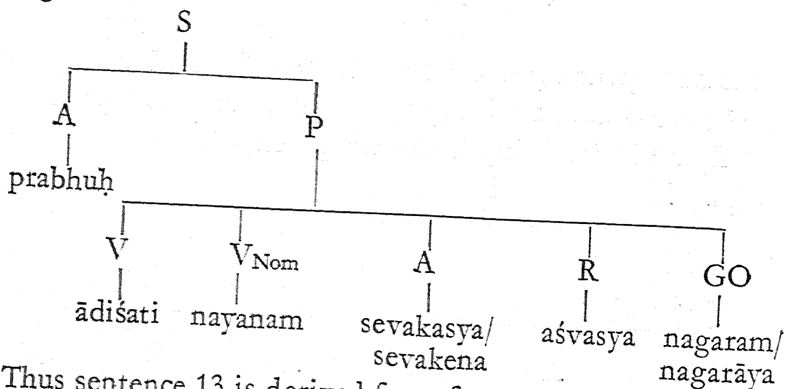
Figure X



The subjectivalisation-rule may select A (of the matrix S) for agreement with the V. Recall the subjectivalisation-rule explicated earlier (figure XXIV, III. 5), which bars the selection of any case-category which has originated in the embedded S, even if A (in the matrix S) is not selected for agreement with the V. That statement holds good here as well. However, there is one point to be noted. The subjectivalisation rule has not applied to S_1 (see figure IX above) and no case-category has been selected for agreement with the VNom (in S_0). Under these circumstances, the VNom behaves like an O, and may be selected for the process of passivisation in case A is not selected for subjectivalisation.

A is selected for subjectivalisation, the affix-substitution rule replaces features with affixes and the final form is as represented in figure XI. (It may be noted that morphophonemic rules attach g(enitive) obligatorily to R ('aśva'), optionally to A('sevaka' : i(nstrumental) is attached alternatively), and d/acc to GO ('nagara')).

Figure XI

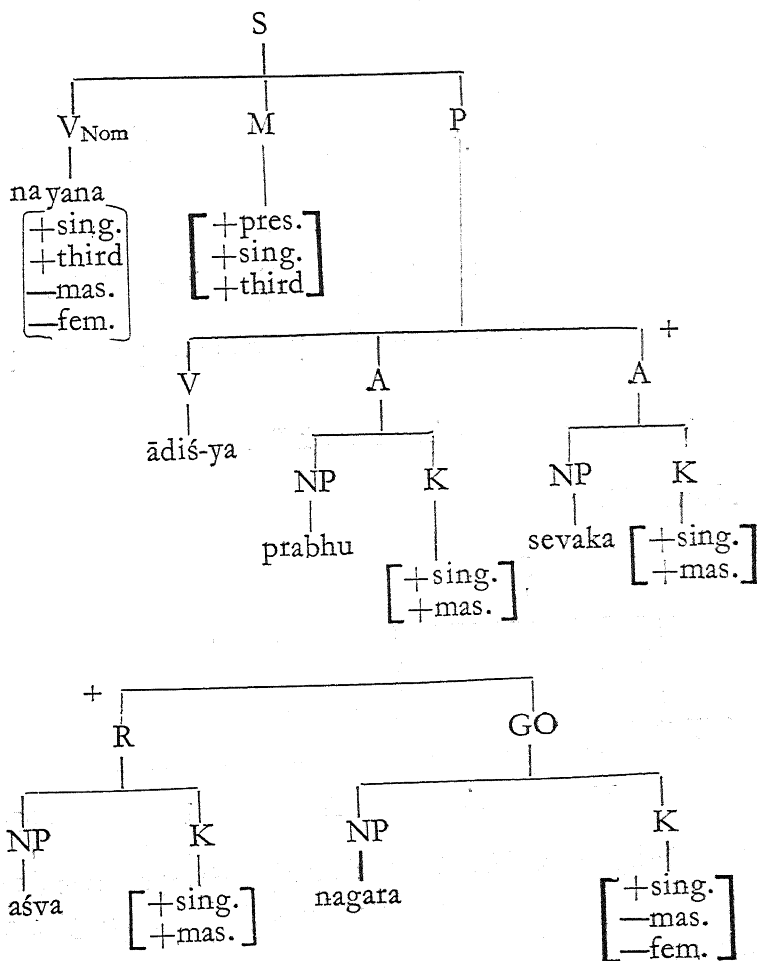


Thus sentence 13 is derived from figure XI.

Alternatively, if A is not selected for agreement with the V, at the stage of figure X, the process of passivisation, operates and the VNom ('nayana') is selected for

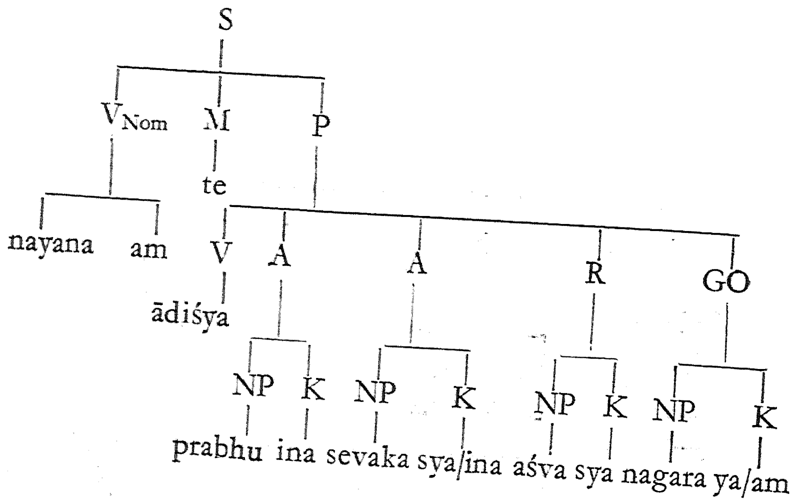
agreement with the V. The result is as represented in figure XII (from figure X).

Figure XII



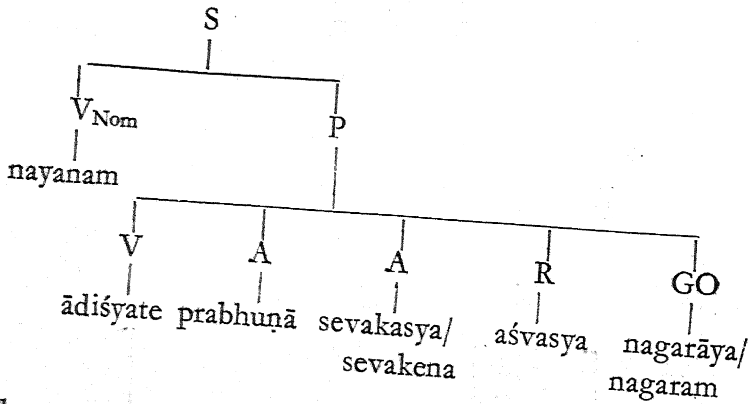
The affix-substitution rule replaces the features with affixes (morphophonemic rules attach 'g/i' to A(of the embedded S), 'g' to R, 'd/acc' to GO. The result is as represented in figure XIII.

Figure XIII



The final form is as in figure XIV.

Figure XIV



Thus, sentence 13′ is derived from figure XIV.

Consider, next, sentences 14, 14′ and 15, 15′ which have the underlying structures as represented in figures XV and XVI respectively.

Figure XV

- S_0
  - M
    - [+past]
  - P
    - V
      - vardh
    - O
      - S_1
        - M
          - [+prog.]
        - P
          - V
            - pipās
          - D
            - NP
              - pathika
            - K
          - O
            - NP
              - jala
            - K

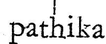


Figure XVI

- S_0
  - M
    - [+pres.]
  - P
    - V
      - vardh
    - O
      - S_1
        - M
          - [+prog.]
        - P
          - V
            - ruj
          - I
            - NP
              - roga
            - K
          - R
            - NP
              - bālaka
            - K



The nominalisation-rule specifies V(in the embedded S) as V_{Nom} and attaches [—adj.] to V_{Nom}, subjectivalisation does not operate, the node M is deleted, the stem-element 'ā' is attached to the items under V_{Nom} of the embedded S in figures XV and XVI. The result is as represented in figures XVII and XVIII respectively (omitting intervening details).

Figure XVII

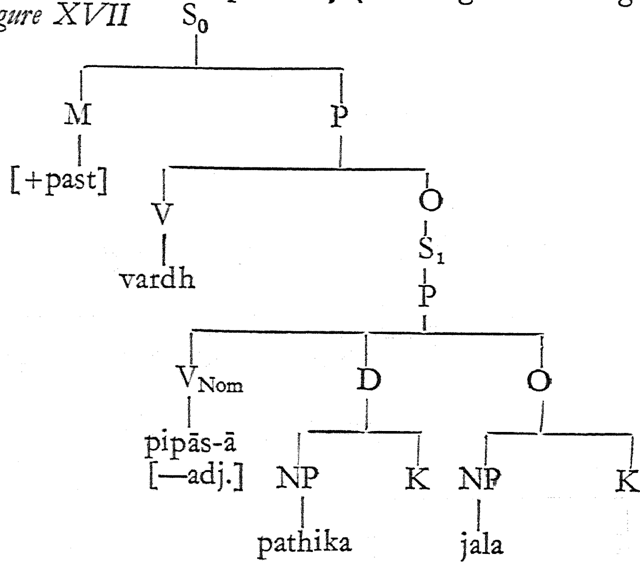
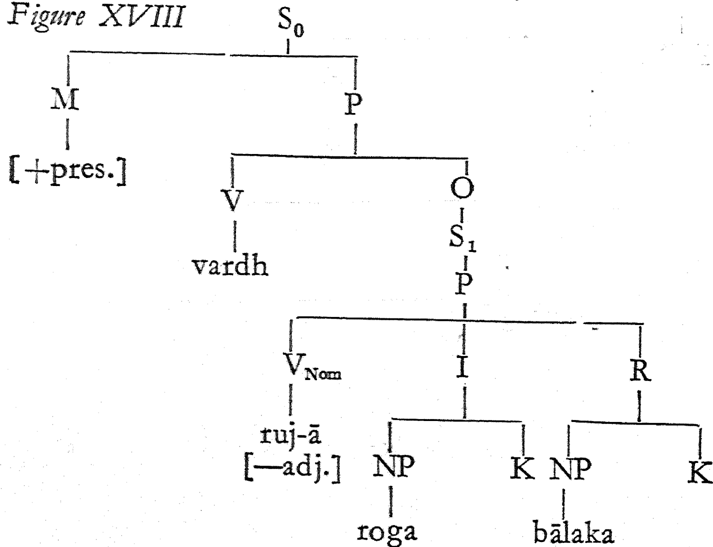


Figure XVIII



Now, the node-pruning rule deletes the nodes S_1 (in figures XVII, XVIII), the P-raising rule and the P-deletion rule apply, and the result is as in figures XIX and XX respectively.

Figure XIX

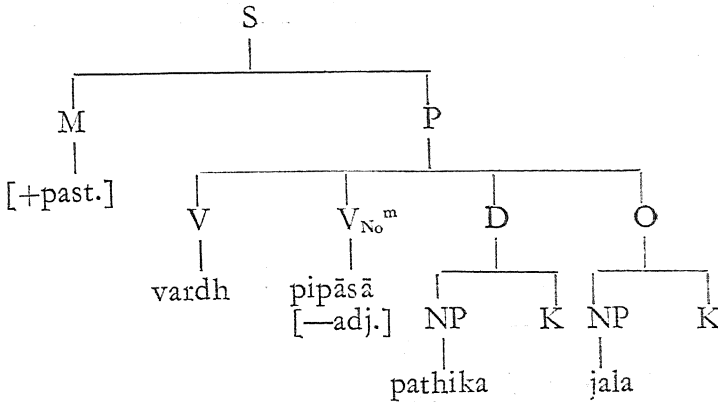
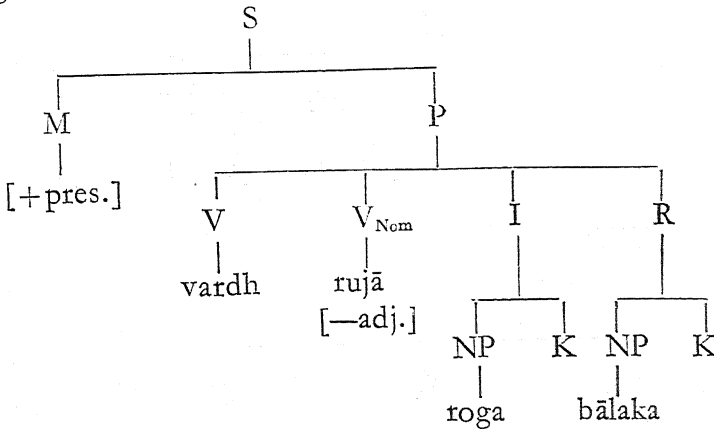


Figure XX



As mentioned above (figure XI, above), no case-category which has originated in the embedded S can be selected for subjectivalisation after P-raising. But, no subjectivalisation-rule has applied to the embedded S and no case-category therein has been selected for agreement with the V_{Nom}. Under these circumstances, the V_{Nom} behaves like O and can be subject to subjectivalisation and the process of passivisation.

V_{Nom} is selected for agreement with the V, the affix-substitution rule replaces the features with affixes (morpho phonemic rules attach 'g' to D and O in figure XXI, and 'g/i' to I and 'g' to R in figure XXII). The result is as represented in figures XXI, XXII (omitting intervening details).

Figure XXI

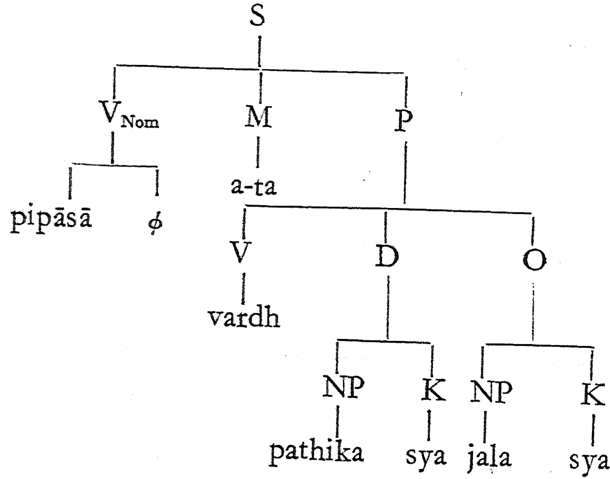
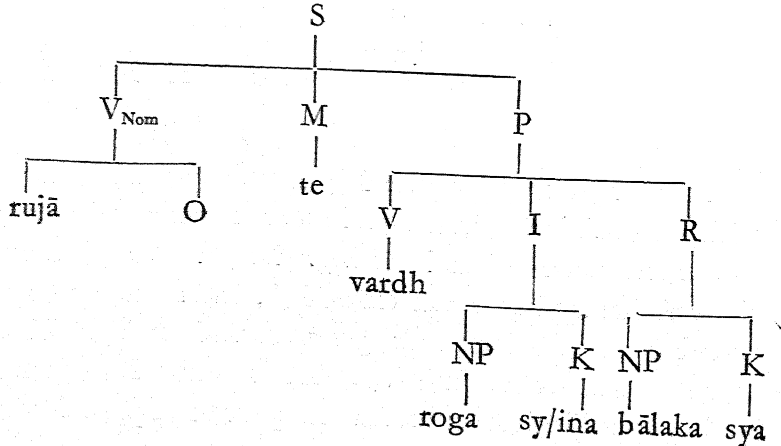


Figure XXII



The final forms are as represented in figures XXIII, XXIV, from which sentences 14 and 15 are derived respectively.

Figure XXIII

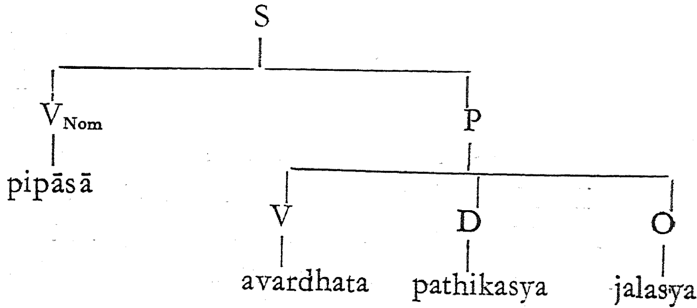
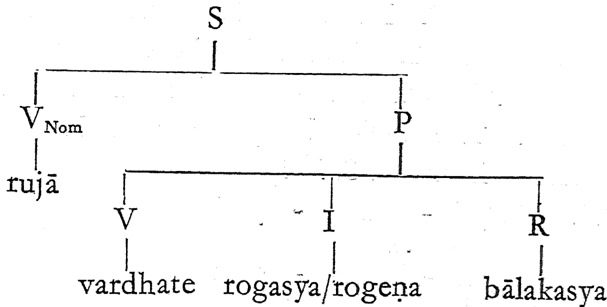


Figure XXIV



Alternatively, if at the stage of figures XIX, XX, the VNom's ('pipāsā' and 'rujā') are not selected for subjectivalisation, the process of passivisation without subjectivalisation operates and sentences 14′ and 15′ are derived from figures XXV and XXVI respectively (from figures XIX, XX) (omitting intervening details).

Figure XXV

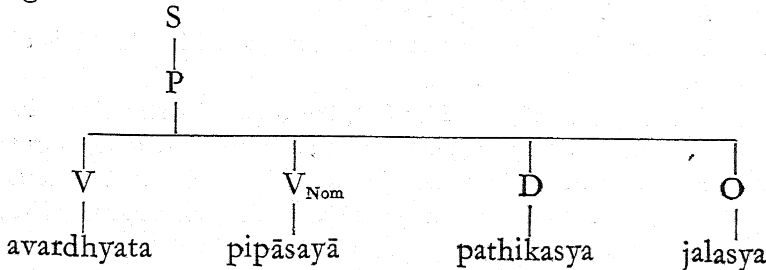
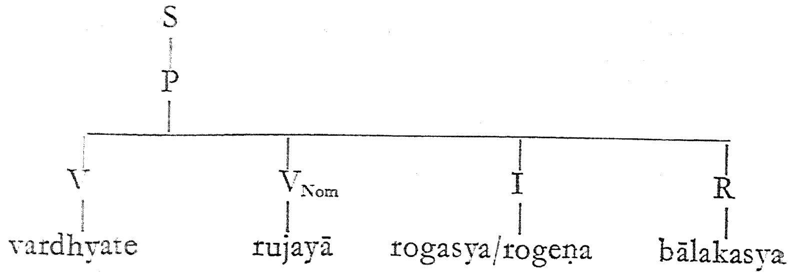


Figure XXVI



IV. 3. 2. In this section, constructions like 10, 11 above (IV. 3) and 16, 19 below in which a Genitive (f. n. 1) is related to an NP, are discussed. Comparable constructions in other languages, for example in Hindi[14], have been referred to as 'possessive'. I would refer to them as Genitives. In sentences 10 and 16, the relation between the Genitive and the related NP is 'inalienable' and in sentences 11, 17 it is 'alienable'. The inalienability and alienability of relation is discussed later (IV. 3. 2. 1).

16. bālāyāḥ - pitā - yāti
G g A
of girl - father - goes
(girls's father goes)

17. bālāyāḥ - pustakam - asti
G g Es
of girl - book - is
(the girl has a book/there is girl's book)[15]

Various scholars have referred to the structural parallelism between locative and possessive constructions.[16]

14. Kachru, Y., (1969), pp. 37-45.

15. This ambiguous interpretation of sentences like 11, 17 is discussed in IV. 3. 2. 4.

16. Lyons, J., (1969), pp. 391; 334, 344-345. Constructions like 'x's *book*' vs. 'the book *on the table*' : this parallelism appears to be dependent on the assumption that the underlined segments are 'optional or structurally dispensable constituents of the sentence'. Cf. id. (1967), pp. 390-96.

But this statement does not take into consideration sentences like 10, 16 above. The main motivation for this parallelism appears to be the fact that 'x's' and 'on the table'[16] in sentences such as 'this is x's book : the book is on the table' are not essential constituents. But, this is not true with all Genitive constructions. In sentences like 10, 16, 'vadanam' (face) being a body-part term and 'pitā' (father) being a relational term, imply a Genitive like 'bālāyāḥ' which is not a non-essential constituent. This is true even in sentences like 'vadanam - sundaram - asti' (face-beautiful-is) and 'pitā - yāti' (father goes), as the interpretation is always in a context. Lyons does not discuss constructions like 10, 16 above.[17]

In the case of constructions like 11, 17 above Lyons is in favour of treating 'have' as a surface realisation of the underlying possessive, thus deriving a sentence like 'x has a book'⇐'the book is x's', on the basis of characteristics in languages like Slavonic and Celtic which have no verbal form comparable to 'have' in English. However, the occurrence of a verb like 'have' in a language like English, makes explicit the distinction between sentences 10, 16 and 11, 17 above.[18] It will be proposed that sentences like 11, 17 have a sentential derivation i. e. have a derivation involving an embedded S(IV. 3. 2. 4.), but that sentences like 10, 16 do not.

Consider sentences 18-20 besides 10, 16 above.

18. tasyāḥ - vadanam - sundaram - asti
G g O nom
her - face - beautiful - is
(her face is beautiful)

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17. Lyons, J., (1969), pp. 388-398.
18. Fillmore, C. J., (1968a), p. 66.

19. bhavanasya - praveśadvāram - apāvṛtam - asti
G g O nom
of building - entrance-door - opened - is
(the entrance-door of the building is open)

20. bhāratasya - uṣṇakālaḥ - duḥkhaḥ - asti
G g O nom
of India - hot weather, - unpleasant - is
(India's hot weather is unpleasant)

The relationship between the Genitive and the associated NP (in sentences 16, 18, 19, 20) is 'inalienable'. The relation refers to kinship (in sentence 16), to part-whole (in sentences 18, 19 : in 18 it is body-part and in 19 it relates to inanimate entities), to weather or meteorological phenomenon (in sentence 20). Though, it is not certain that the relationship between 'uṣṇakālaḥ' and 'bhāratasya' in sentence 20, is inalienable semantically, the relationship in 18, 19 is semantically inalienable. In so far as the syntactic justification is concerned, sentences 18′, 19′, 20′ with the occurrence of 'pārśve' are not acceptable (cf. IV. 3. 2. 1.).

18′. * tasyāḥ pārśve - vadanam - sundaram - asti
her - face - beautiful - is

19′ * bhavanasya pārśve - praveśadvāram - apāvṛtam- asti
of building - entrance door - opened - is

20′. * bhāratasya pārśve - uṣṇakālaḥ - duḥkhaḥ - asti
of India - hot weather - unpleasant - is

It may be noted that even in a locative sense the occurrence of 'pārśve, in 18′, 19′ 20′ is not acceptable.

Thus, the sentences 16, 18-20 are marked for 'inalienable possession' and sentence 17 for 'alienable possession',[19] and henceforth will be referred to as such.

19. Fillmore, C. J., (1968a) p. 66. Cf. Chomsky, N., (1970a), pp. 200-07.

IV. 3. 2. 1. Fillmore proposes two schemata for the derivation of constructions with inalienable and alienable possession. Thus a sentence expressing 'alienable possession' like 'my house' in English would be derived from 'I have a house', in which the Genitive and the possessed NP come from an embedded S, the schema for the NP dominating the Genitive being NP→N(S). A Sentence expressing inalienable possession like 'my father' would be derived from an NP dominating a D, the schema being NP→N(D).[20] In Sanskrit also, this distinction between sentential and non-sentential derivation of a construction with a Genitive is crucial syntactically and semantically, and needs to be retained. However, in the absence of a verb like 'have' there must be some other device to bring out this distinction.[21].

IV. 3. 2. 1. 1. Consider first sentences with Genitives which express 'inalienable possession' for which there is a schema like NP→N(D). Thus a sentence like 21 is distinguished from sentence 22 with alienable possession wherein the occurrence of the PP 'pārśve, may be accepted as a dis-

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20. Fillmore, C. J., (1968a), p. 66 : the schema, as proposed by Fillmore, is under the sub-title 'adnominal datives'-for him an adnominal dative is 'a possessive modifier' (p. 66) of a noun. In IV. 3. 2. 1. 1. 5., a schema like NP → N(O) also is proposed as it is not the case that the relationship is always to an animate entity.

21. Fillmore, C. J., (1968a), p. 66 : 'A distinct method is required for introducing the possessive element in the case of inalienable possession, a method which reflects the fact that the relationship between the two nouns in 'inalienable possession' is not a sentential relationship. In Sanskrit, the occurrence of 'pārśve' brings out this distinction between alienable and inalienable relationships. In the case of a Genitive with the co-occurrence of 'pārśve' indicating the alienable relationship, a sentential derivation is proposed (IV. 3. 2. 4.).

tinguisher of alienability. It may be noted that a sentence like 21 cannot have an expansion like 21′.

21.* mitrasya - bhaginī - yāti
G g A nom
of friend - sister - goes
(friend's sister goes)

22. mitrasya pārśve - yat - pustakam - asti - tat - navam
G g
of friend - which-book - is - that -new-
asti
is
(that book which is of friend, is new)

21′* mitrasya pārśve - yā - bhaginī - asti - sā - yāti
G g
of friend - who - sister - is - she - goes

In sentences 21′, 22, 'pārśve' is not interpreted as a locational reference. It may be noted that a sentence like 23 containing 'pārśve' with a locational reference (i.e. near) cannot give a sentence like 24, i. e. no optional deletion of 'pārśve' (in its locational sense) is allowed.

23. (a) mitrasya - pārśve - yat - pustakam - asti - tat ...
G g
of friend - near - which - book - is - that...
(that book which is near the friend ...)

(b) mitrasya - pārśve - mātā - asti
G g
of friend - near - mother - is
(mother is near the friend)

24.* (a) mitrasya - yat - pustakam - asti - tat
of friend - which - book - is - that

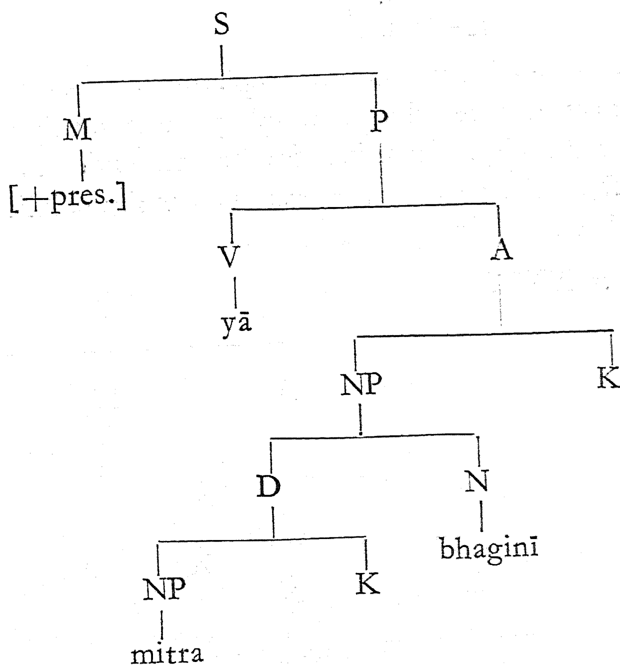
(b) mitrasya - mātā - asti
of friend - mother - is

If the locational reference is not implied, sentences like 24(a) can be derived from 23(a). However, it may be recalled that, without a locational reference of 'pārśve' sentence 23(b) is unacceptable and as such no question of deriving 24(b) would arise.

In other words, sentences 24(a), 24(b) with the optional deletion of 'pārśve' (in locational sense) cannot be derived from 23(a) and 23(b). Sentences 24(a) and 24(b) are, otherwise, acceptable.

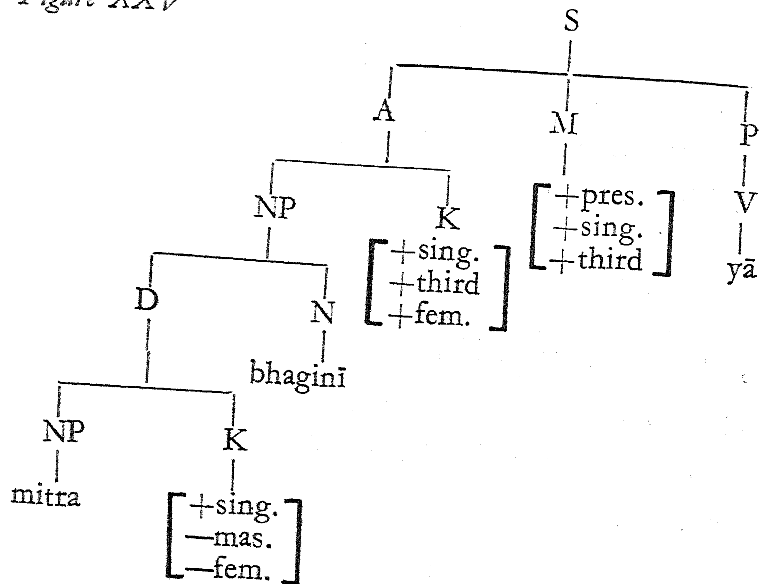
IV.3.2.1.1.1. Consider sentence 21 above which has the underlying structure as in figure XXIV.

Figure XXIV



D remains inside A and the subjectivalisation rule selects A for agreement with the V. The result is as in figure XXV.

Figure XXV



The affix-substitution rule replaces features with affixes. (It may be noted that a morphophonemic rule obligatorily substitutes 'sya' (genitive) for features under K dominated by D). The result is as represented in figure XXVI and the final form as in figure XXVII.

Figure XXVI

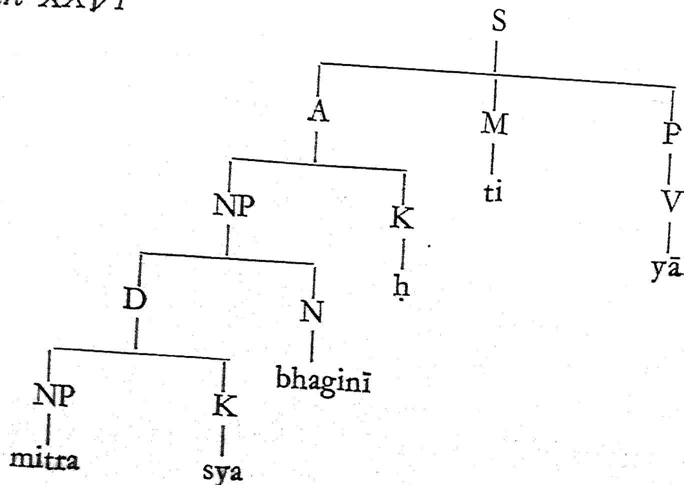
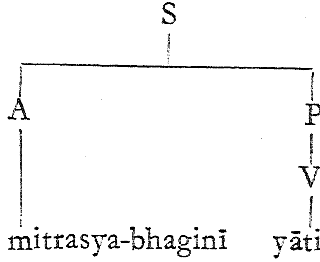


Figure XXVII



IV. 3. 2. 1. 1. 2 Consider, next, sentences 25-32 which have an attribute-element also. Only sentences 25-26′ will be described completely. Sentences 27-32 have a derivation similar to that of 25-26′.

25. sevakasya - netram - kāṇam - asti
D g Es nom T nom
of servant - eye - blind - is
(the servant is blind in one eye)

25′. sevakasya - netreṇa - kāṇena - bhūyate
D g Es i T i
of servant - by eye - by blind - is become
((it) is become blind in one eye of the servant)

26. sevakaḥ - netreṇa - kāṇaḥ - asti
D nom Es i T nom
servant - by eye - blind - is
(the servant is blind in one eye)

26′. sevakena - netreṇa - kāṇena - bhūyate
D i Es i T i
by servant - by eye - by blind - is become
((it) is become blind in one eye by the servant)

27. tasya - varṇaḥ - gauraḥ - asti
G g Es nom T nom
his - colour - fair - is
(his colour is fair)

28. sa - varṇena - gauraḥ - asti
D nom Es i T nom
he - with colour - fair - is
(he is fair in colour)

29. tasyāḥ - prakṛtiḥ - madhurā - asti
D g Es nom T nom
her - nature - sweet - is
(her nature is sweet)

30. sā - prakṛtyā - madhurā - asti
D nom Es i T nom
she - with nature - sweet - is
(she is sweet by nature)

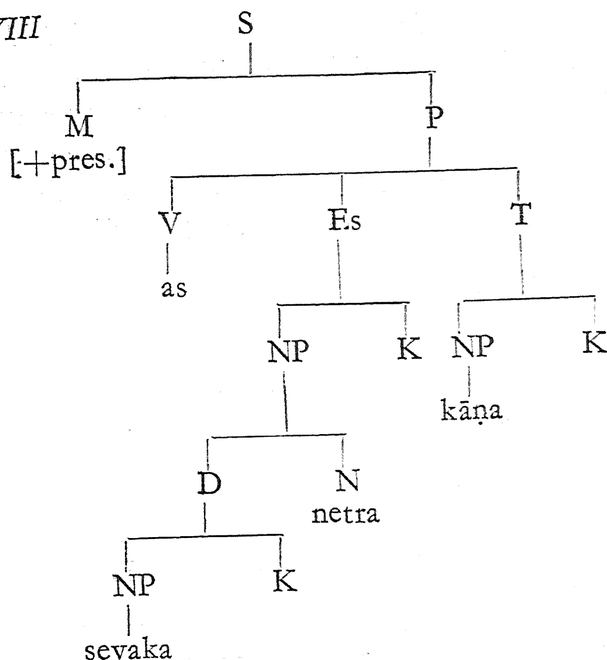
31. bālikāyāḥ - ākṛtiḥ - mañjulā - asti
D g Es nom T nom
of girl - look - lovely - is
(girl's looks are good)

32. bālikā - ākṛtyā - mañjulā - asti
D nom Es i T
girl - by look - lovely - is
(the girl is lovely by looks)

Sentences 25-26' have three elements (i) possessor-'sevakasya/sevakaḥ' (ii) body-part - 'netram/netreṇa' and (iii) attribute-'kāṇam/kāṇena', which will be referred to as 'P', 'B', 'At' respectively for discussion below.

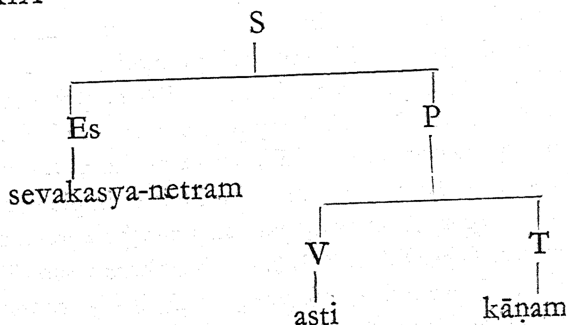
Sentences 25-26 have the underlying structure as in figure XXVIII.

Figure XXVIII



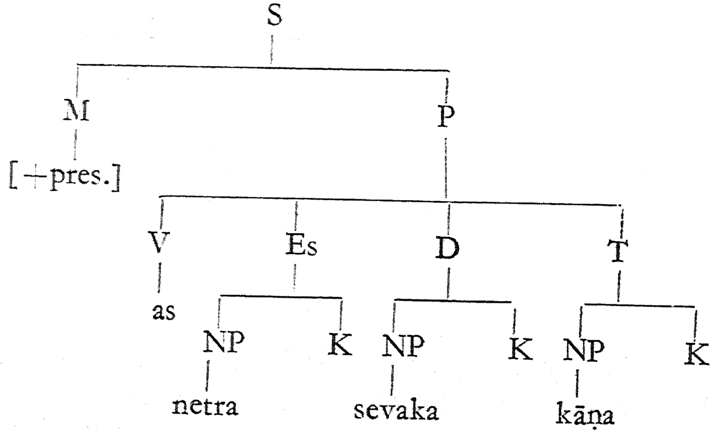
Now, D may or may not remain inside Es. D is not promoted i.e. remains inside Es, and the subjectivalisation rule selects Es for agreement with the V. The affix-substitution rule replaces features with affixes. It may be noted that T takes on the features of Es (these two processes are similar to those in figures XXV, XXVI above and hence are omitted). The final form is as represented in figure XXIX.

Figure XXIX



Thus, sentence 25 is derived from figure XXIX. If, at the stage of figure XXVIII, the subjectivalisation-rule does not operate, the process of passivisation without subjectivalisation applies and sentence 25′ is derived.[22] Alternatively, at the stage of figure XXVIII, D is promoted[23] and the result is as in figure XXX (from figure XXVIII).

Figure XXX

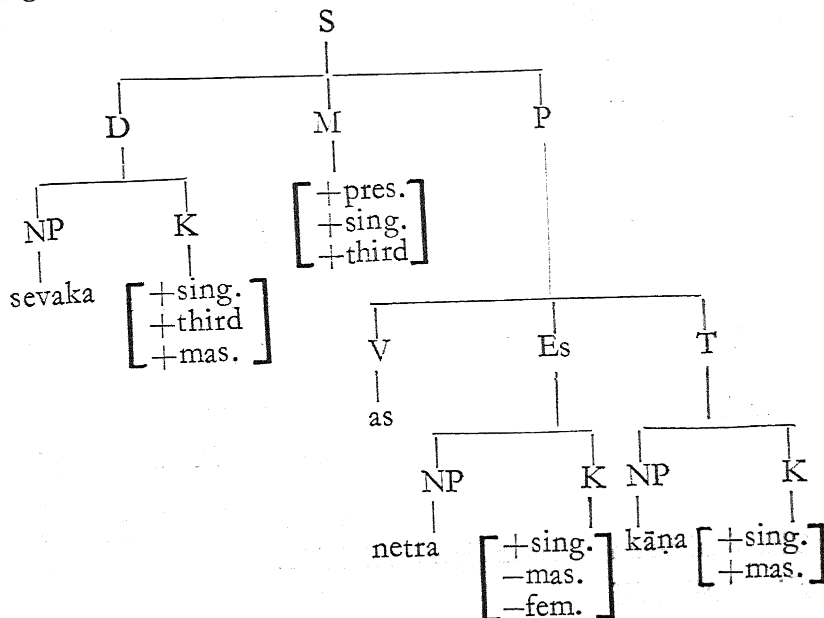


22. This process of passivisation without subjectivalisation operates in the case of sentence 26′ as well, and may operate in the underlying structures of sentences 27-32 also. As it has been explained more than once before, it will not be referred to again unless necessary.

23. It may be recalled that in the case of sentence 21 (figure XXIV), no possibility of this optional promotion of D is indicated. This optionality of promotion is possible only when the Genitive and the related NP is in body-part (or part-whole) relation, along with the co-occurrence of T in its case-frame. In such constructions, only Es can dominate the D in a simple sentence. The case-category L (in body-part or part-whole relation) also may dominate D (see IV. 3. 2. 1. 1. 4), but there is no T in the case-frame. In fact this case-category T also is constrained by its attributive feature.

D is selected for subjectivalisation and T takes on the features of D.[24] The result is as represented in figure XXXI.

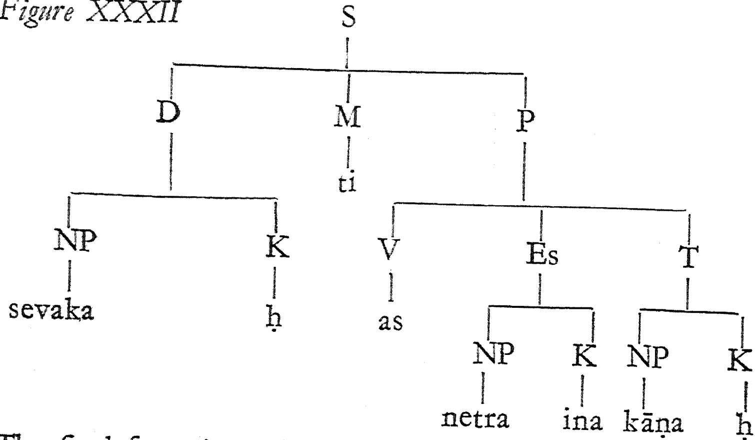
Figure XXXI



24. There arise three points. In the first instance, figure XXX shows a case-frame like [Es, D, T——]. But, in the chapter on 'NP-asti-NP constructions', it has not been mentioned that the casecategory Es can occur with D. In the second place, what casecategory, if any, may be assigned to 'sevaka' (i.e. D) after its promotion (as in figure XXX) ? as it is evident that no case-frame containing D has been suggested in the chapter III. Then, would it be necessary to relabel D as Es, after its promotion ? The answer is in the negative as cases are specified in underlying structures. A way out of these problems suggests itself in the fact that in such sentences D is always dominated by Es, and as such it need not be indicated in the case-frame which is specified as [Es, T ———]. However, a rule may specify that in case D is promoted, the subjectivalisation-rule selects D rather than Es (Es is usually selected in the case of an 'NP-asti-NP' construction).

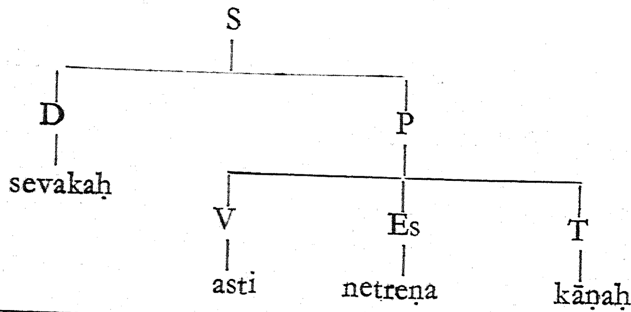
The affix-substitution rule applies and replaces features with affixes. It may be recalled that the features under K dominated by Es, are obligatorily replaced by 'i' - affix, in case Es is not subjectivalised. The result is as represented in figure XXXII.

Figure XXXII



The final form is as in figure XXXIII.

Figure XXXIII



Now, the T takes on the features of this D (which has been dominated by Es and now stands promoted), rather than that of Es (in an 'NP-asti-NP' construction T takes on the features of Es). With these processes, there appears to be no need to relable D after its promotion, which would, otherwise, add to the complexity in the form of two occurrences of the same casecategory (if D is relabelled as Es) in a simple sentence.

Thus, sentence 26 is derived from figure XXXIII. As mentioned earlier (f. n. 22) sentence 26′ can be derived in case the process of passivisation without subjectivalisation operates at the stage of figure XXX.

It may be noted that all sentences (25-32) have the elements P(ossessor), B(ody-part)[25] and At(tribute). To account for such constructions (25, 27, 29, 31) Fillmore[26] refers to a schema like (i) $[P_g \longrightarrow B]$ - asti-At. An alternative schema like (ii) P_{nom} asti $[B_i\ At]$ is proposed for constructions like 26, 28, 30, 32.

As shown above, the case-categories D, Es, T occurring in a case-frame, dominate NP's which indicate P(ossessor), B(odypart) and At (tribute) respectively. The schemata (i) and (ii) above, show the surface-realisations of sentences like 25, 27, 29, 31 and 26, 28, 30, 32 respectively.

IV. 3. 2. 1. 1. 3. Consider, next, sentences like 33-35, in which the At(tribute) is replaced by a nominal specified as T.

33. bālakaḥ - *pustakaiḥ* - chātraḥ - asti
Es nom i T nom
boy - with books - student - is
(from his books, the boy appears to be a student)

---

25. One may argue that there is an extension of the notion of 'body part' (in case of sentences 27-32). The term 'body-part may be appropriately replaced by 'part-whole' because the possessed NP, even if not a body-part, is conceived as organically related with P(ossessor). The term 'body-part' is retained to have the minimum modification in the rule referred to by Fillmore.

26. Fillmore, C. J., (1968a), p. 64 : Fillmore is not explicit as to what is meant by a symbol like '→'. It may be interpreted as P (with genitive inflexion) related to B. The schema as mentioned by him is $[P_{gen} \rightarrow B]$ be A.

34. sa - *keśaiḥ* - tāpasaḥ - asti
Es nom i T nom
he - with hair - mendicant - is
(from his hair, he is a mendicant)

35. yuvatī - *sindureṇa* - sabhartṛkā - asti
Es nom i T nom
young lady - with vermilion - with husband - is
(the young lady appears married (with husband) on account of vermilion)

The underlined NP's - 'pustakaiḥ' 'keśaiḥ', 'sindūreṇa' - in sentences 33-35, which have been referred to as B(ody-part), may perhaps justifiably, be called 'part-whole'. Whether the appropriate term is 'body-part' or 'part-whole', the relation between the P(ossessor) specified as Es(33-35 above) and the possessed NP's (underlined and unspecified as to their case-category) via T(in above sentences (33-35)), is inalienably conceived. In sentences 33-35 the P(ossessor) is identified with the nominal specified as T. The NP's-'pustakaiḥ', 'keśaiḥ' 'sindūreṇa' - are considered inalienably related to T('chātraḥ', 'tāpasaḥ', 'sabhartṛkā). It may be noted that through this relation between the NP's (body-part/part-whole) and NP's specified as T, the P(ossessor) (specified as Es) becomes inalienably related to the NP's (body-part/part-whole). This is why the relation between 'bālakaḥ - pustakaih' (boy with books) in sentence 33, unlike that between 'bālakasya - pustakam' (of boy-book) in sentence 1 (IV. 1), is not an alienable one. Similarly, the relation between 'yuvatī' and 'sindūreṇa' in sentence 35, is inalienable. This position is further supported by the fact that sentences 33′, 35′ are unacceptable.

33′. * bālakaḥ - mohanasya - pustakaiḥ - chātraḥ - asti
boy - of m. - with books - student - is
(the boy is a student on account of m.'s books)

35′.* yuvatī - piṭakasya - sindūreṇa - sabhartṛkā - asti
young lady-of casket-with vermilion-married-is
(the young lady is married on account of the vermilion of the casket)

Sentences 33-35 show that the inalienability is probably a category of grammar. The set of elements over which this category ranges is language -specific, in that it is dependent on the culturally bound definitions of individual lexical items.

Compared with sentences 26, 28, 30, 32, sentences 33-35 differ in some respects. In 33-35, T is not an attribute and it is identified with the P(ossessor) specified as Es and the B(ody-part) (i. e. 'pustakaiḥ', 'keśaiḥ', 'sindūreṇa') constitutes the defining criteria for Es to be identified with T. These distinctions account for the fact that sentences 33″-35″ comparable to sentences 25, 27, 29, 31 are not acceptable.

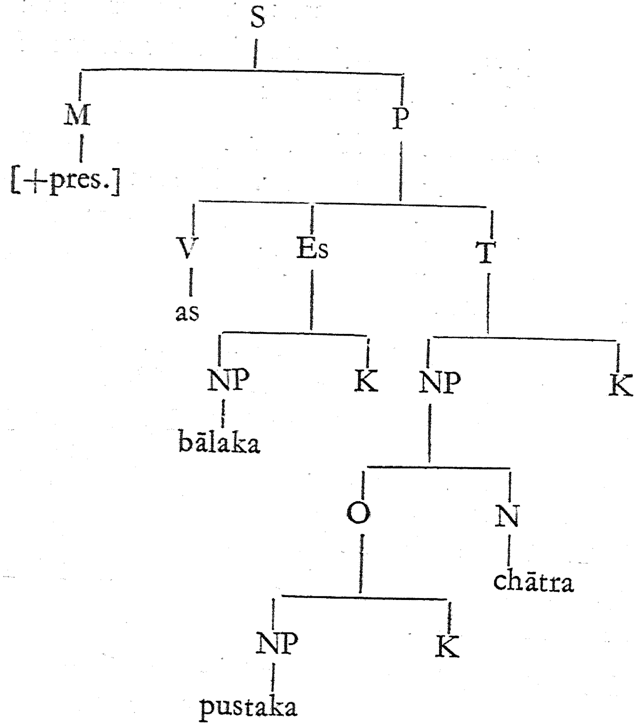
33.″ * bālakasya - pustakāni - chātrāḥ - santi
g nom T nom
of boy - books - students - are

34.″ * tasya - keśāḥ - tāpasāḥ - santi
g nom T nom
his - hair - mendicants - are

35.″ * yuvatyāḥ - sindūram - sabhartṛkam - asti
g nom T nom
of young lady - vermilion - married - is

There appears to be no need to describe sentences 33-35 through all stages of their derivation which would be similar to that of any 'NP - asti - NP' sentence (chap. III) as is evident from the underlying structure of sentence 33 as represented in figure XXXIV.

Figure XXXIV



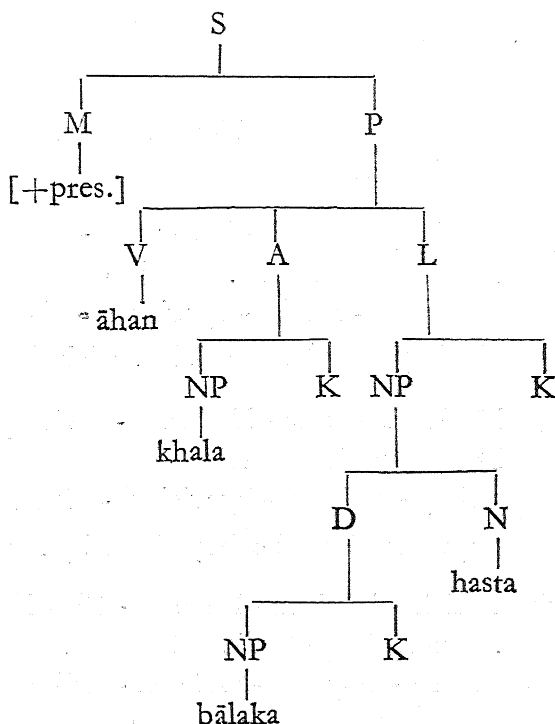
The configuration in figure XXXIV shows that in sentences 33-35, T is a complex structure which can be accounted for by a schema like NP ⟶ N(O).

IV. 3. 2. 1. 1. 4. The sentences discussed above (21, 25-35) show kinship and body-part (i. e. part-whole) relations. Consider, next, a sentence like 36 which also expresses a body-part relation.

36. khalaḥ - bālakasya - haste - āhanti
A nom D g L 1
wicked - of boy - on hand - strikes
(a wicked man strikes the boy on his hand)

The above sentence has a case-frame like [A,L——] wherein L is a body-part and dominates D. The underlying structure of sentence 36 is as represented in figure XXXV.

Figure XXXV



At this stage (of figure XXXV) there are two options : (i) D may remain inside L or (ii) D is promoted. Subsequently, a subjectivalisation-rule applies optionally. Consequently, there are five possibilities as follow :

(a) If D remains inside L,

(i) A may be selected for subjectivalisation as in sentence 26 above.

(ii) or L may be selected for subjectivalisation as in sentence 36(a) below.

(iii) the subjectivalisation-rule may not operate as in sentence 36(b) below.

(b) If D is promoted,

(iv) A is selected for subjectivalisation as in sentence 36(c) below.

(v) D is selected for subjectivalisation as in sentence 36(d) below.

36(a). bālakasya - hastaḥ - khalena - āhanyate
D g L nom A i
of boy - hand - by wicked - is struck
(the boy's hand is struck by a wicked man)

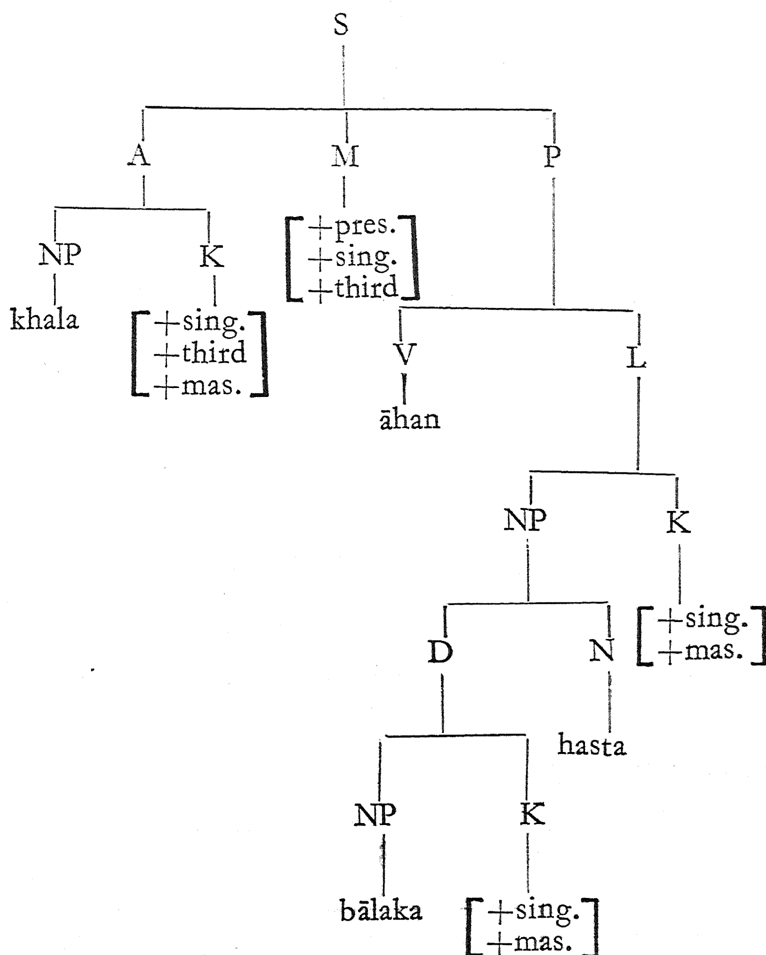
36(b) bālakasya - haste - khalena - āhanyate
D g L l A i
of boy - on hand - by wicked - is struck
((it) is struck on the boy's hand by a wicked man)

36(c). khalaḥ - bālakam - haste - āhanti
A nom D acc L l
wicked - boy - on hand - strikes
(a wicked man strikes the boy on his hand)

36(d). bālakaḥ - haste - khalena - āhanyate
D nom L l A i
boy - on hand - by wicked - is struck
(the boy is struck on his hand by a wicked man)

Now, the option (a) above is selected (i. e. the D-promotion rule does not apply). A is selected for subjectivalisation and the result is as in figure XXXVI.

Figure XXXVI



The affix-substitution rule replaces features with affixes. It may be recalled that the affix genitive ('sya') is obligatorily added to D in case it is not promoted (cf. figures XXVI, XXIX). The result is as represented in figure XXXVII. The final form is as in figure XXXVIII, from which we obtain sentence 36 above.

Figure XXXVII

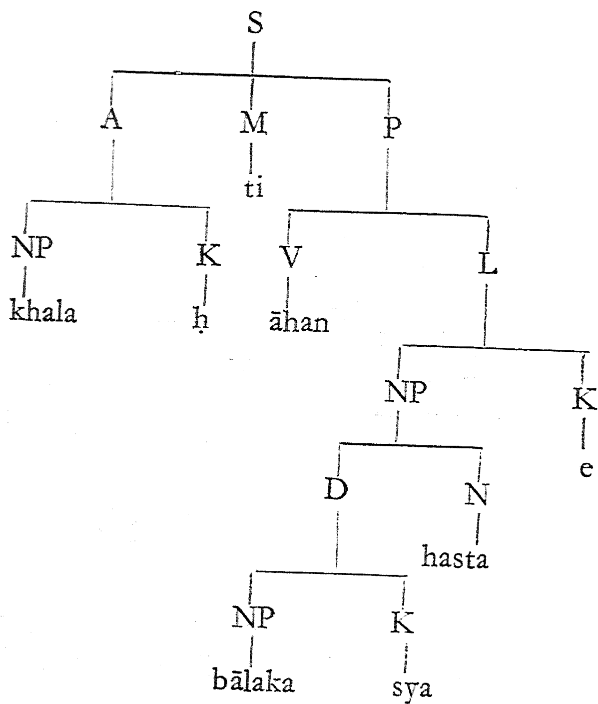
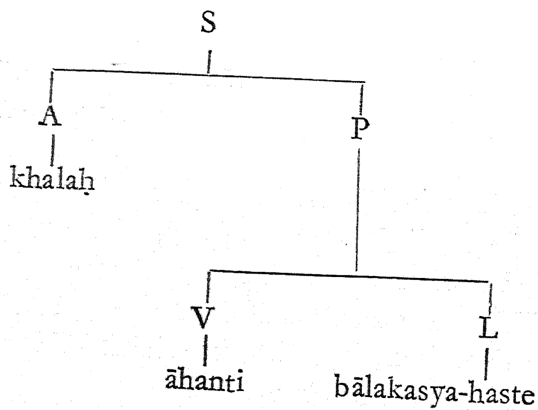
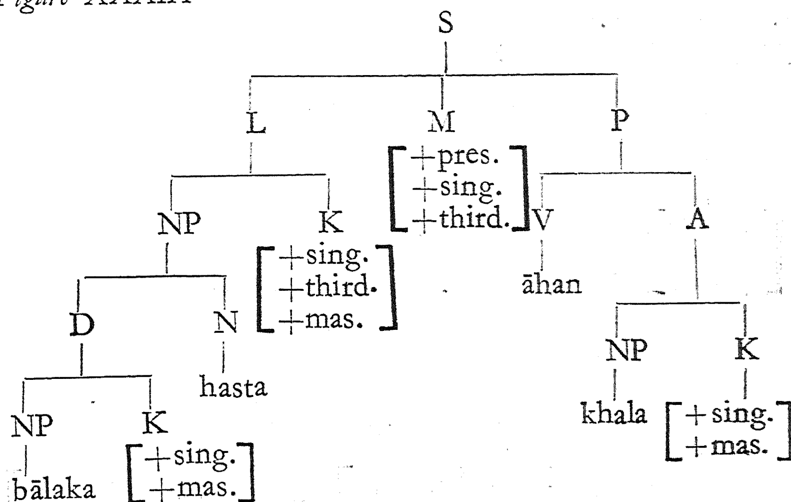


Figure XXXVIII



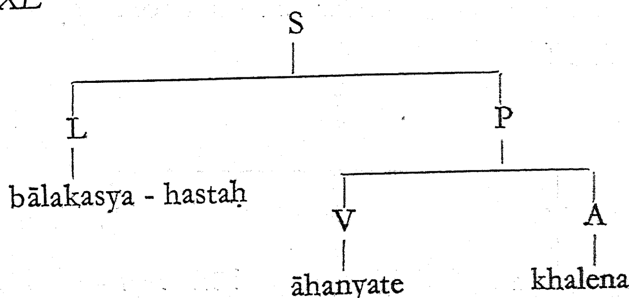
(ii) Alternatively, at the stage of figure XXXV, L is selected for subjectivalisation and the result is as represented in figure XXXIX (from figure XXXV).

Figure XXXIX



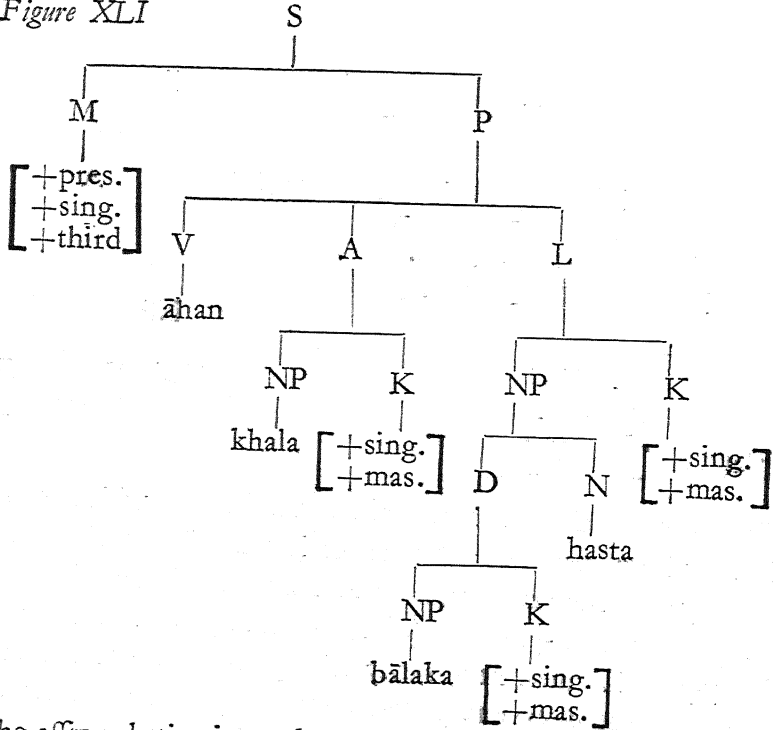
The affix-substitution rule replaces the features with affixes. It may be noted that selection of L for subjectivalisation, usually does not trigger the attachment of 'te' under M and the addition of -ya- to V (cf. II. .4. 4. 3.). But here, with body-part L these necessarily take place. The final form (omitting the intervening details) is as represented in figure XL from which sentence 36(a) above is obtained.

Figure XL



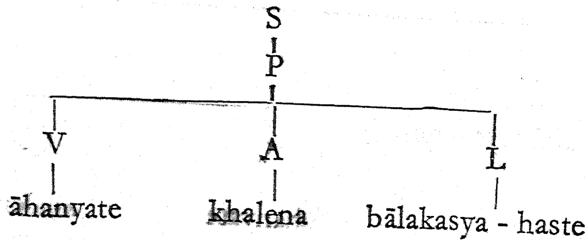
(iii) Alternatively, if the subjectivalisation-rule does not operate and no case-category is selected for agreement with the V, the process of passivisation without subjectivalisation applies and the result is as represented in figure XLI (from figure XXXV).

Figure XLI



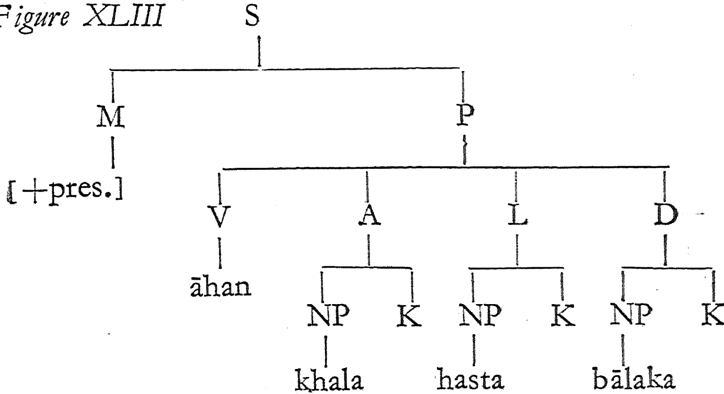
The affix-substitution rule replaces the features with affixes and the final form (omitting intervening details) is as represented in figure XLII from which sentence 36(b) is derived.

Figure XLII



Now, the option (b) is selected i. e. D - promotion applies. The result is as represented in figure XLIII (from figure XXXV).

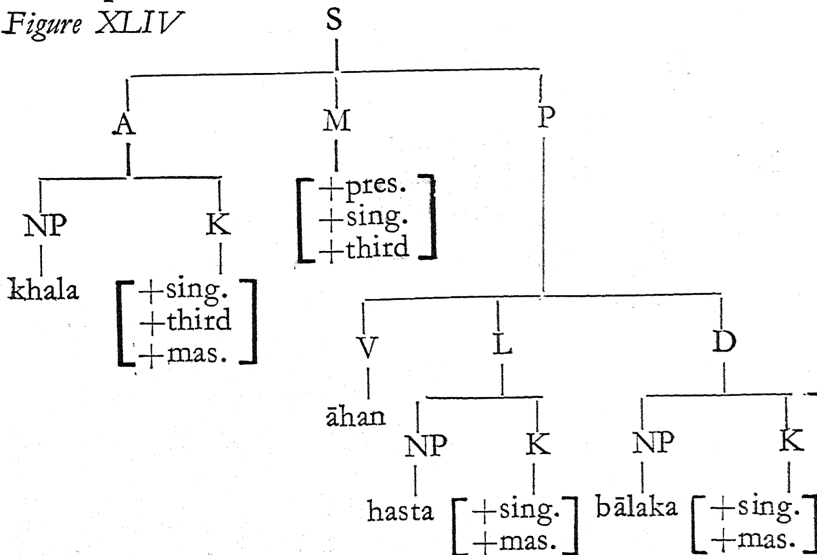
Figure XLIII



Now, at the stage of figure XLIII there are two possibilities : either A is subjectivalised or the process of passivisation operates and selects D for agreement with V (it may be noted that the D after its promotion behaves as R).

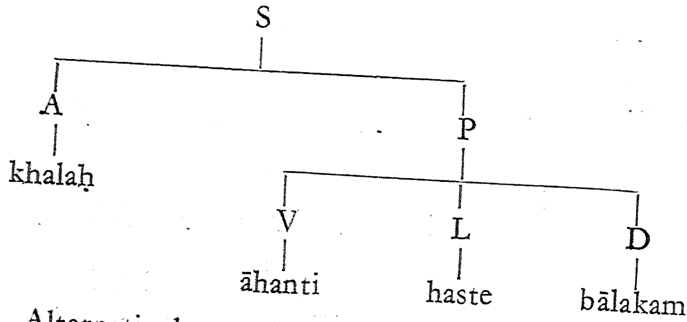
(iv) A is selected for agreement with the V and the result is as represented in figure XLIV.

Figure XLIV



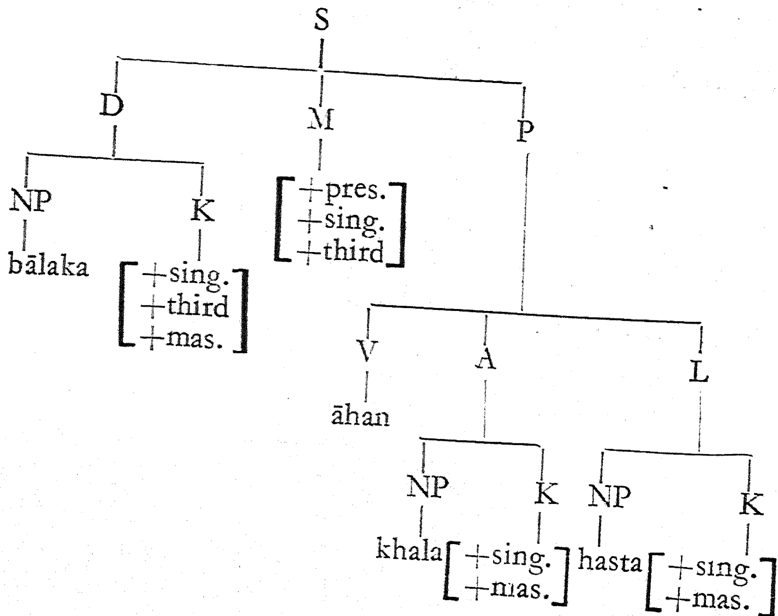
The affix-substitution rule applies and replaces features with affixes. The final form (omitting intervening details) is as represented in figure XLV from which sentence 36(c) is derived.

Figure XLV



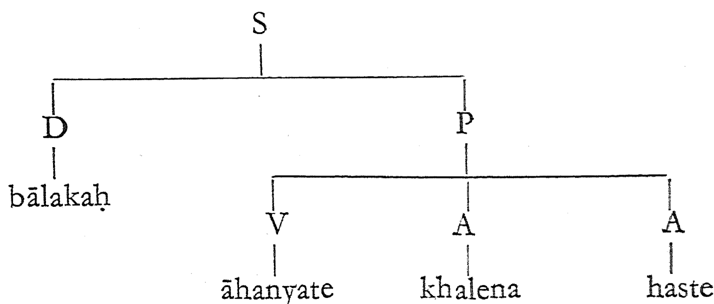
(v) Alternatively, a subjectivalisation-rule does not apply and the process of passivisation operates and selects D for agreement with the V. The result is as in figure XLVI.

Figure XLVI



The affix-substitution rule replaces the features with affixes. The final form (omitting intervening details) is as in figure XLVII from which sentence 36(d) is derived.

Figure XLVII



All the sentences discussed above (21, 25-32, 26) are such in which the Genitive and the related NP are in kinship or bodypart (part-whole) relations. The schema proposed for such constructions is NP → N (D). Fillmore would like to have this schema for a sentence like 37 as well.

37. [nideśakasya — sacivaḥ] — āyāti
A D g nom
of director — secretary — comes

Fillmore is not explicit whether the relation between the D 'nideśakasya' and 'sacivaḥ' is alienable or inalienable, though by implication (as he refers to the schema mentioned above) he rules out a sentential derivation of such constructions. It appears that the occurrence of NP's like 'sacivaḥ' (secretary), 'lipikaḥ' (copyist), 'ṭaNkakaḥ' (typist) which indicate profession, allow the occurrence of 'pārśve' in a non-locational sense, as in sentence 38.

38. tasya pārśve - lipikaḥ/ṭaNkakaḥ/sacivaḥ - asti
g
his - copyist/typist / secretary - is
(he has a copyist/typist/secretary)

It is considered, therefore, appropriate to treat sentences like 37 and 38 with a sentential derivation (which is discussed in IV. 3. 2. 4.). Apparent exception to this position may be sentences like 39 wherein the Genitive and the related NP involve a designation like that in sentence 39.

39. kulapateḥ - sacivaḥ
of vice-chancellor - secretary
(vice-chancellor's secretary / secretary to the vice-chancellor).

It appears[27] that constructions like 39 can better be treated according to the schema NP ——→ N(S).

IV. 3. 2. 1. 1. 5. Consider, next, sentences like 40-43, wherein the items related to Genitives refer to inanimate P(ossessor) in part-whole relation.

40. āsandyāḥ — pādaḥ — navaḥ — asti
G g Es nom T nom
of chair — leg — new — is
(the leg of the chair is new)

41. phalakasya — pṛṣṭham — nirmalam — asti
G g Es nom T nom
of board — surface — clean — is
(the surface of the board is clean)

42. pustakasya — pṛṣṭhāni — navāni — santi
G g Es nom T nom
of book — pages — new — are
(the pages of the book are new)

43. gṛhasya — dvāram — laghu — asti
G g Es nom T nom
of house — door — small — is
(the entrance-door of the house is small)

---

27. It has been argued that the distinction between 'alienable' and 'inalienable' is not relevant here as one can have a sentence like 'prakoṣṭhāt-sacivaḥ - āgataḥ : 'a secretary emerged from the office' (Stockwell, R. P., p 736).

(It may be noted that sentences like 40-43 call for a modification in the schema NP ——→ N(D) (cf. IV. 3. 2. 1, f. n. 20).

None of the above sentences (40-43) can, according to the earlier criterion, have a sentential derivation for the Genitives. It may be recalled that all such Genitives which have alienable relationship with related items (and have a sentential derivation) allow the occurrence of 'pārśve'. But sentences 40′-43′ are unacceptable and as such sentences 40′-43′ cannot have a sentential derivation.

40′.*	āsandyāḥ pārśve	- pādaḥ	- navaḥ	- asti
	of chair	- leg	- new	- is
41′.*	phalakasya pārśve	- pṛṣṭham	- nirmalam	- asti
	of borad	- surface	- clean	- is
42′.*	pustakasya pārśve	- pṛṣṭhāni	- navāni	- santi
	of book	- pages	- new	- are
43′.*	gṛhasya pārśve	- dvāram	- laghu	- asti
	of house	- door	- small	- is

However, a sentence like 44 wherein the Genitive and the associated item are not inalienably related, is acceptable even without a locational reference (sentences like 44 are discussed in IV. 3. 2. 4.).

44. guroḥ — pārśve[28] — lekhanī — asti
G g Es nom
of teacher — pen — is
(the teacher has a pen)

IV. 3. 2. 1. 1. 6. Consider, next, sentences like 45 which contain a directional indicator and exhibit the inalienable relation between the Genitive and the directional indicator.

28. 'pārśve' may mean 'near' also. Here it is not semantically significant i. e. has no locational reference. In 44, it gives the sense which would be captured by 'have' in English and 'ke-pā a' in Hindi.

16

45. guruḥ — mama — vāmataḥ — asti
Es nom G g L
teacher — my — to left — is
(the teacher is to my left)

The relation between 'mama' and 'vāmataḥ' may be treated as body-part relation. Though NP's indicating direction may occur without any personal references as in 45′, a personal reference is always implied.

45′. guruḥ — vāmataḥ — asti
teacher — to left — is
(the teacher is on (my) left)

Perhaps one may argue that in 45′, the reference may be other than the speaker (i. e. 'mama') and the directional NP 'vāmataḥ' may involve reference to a building or anything else. However, this interpretation is possible only in a context. In fact, the absence of an overt form of personal reference (in 45′) is due to the fact that they usually refer to 'position or direction with respect to the speaker or addressee in an utterance, and there are simply many situations in which an adnominal D need not be expressed if it identifies speaker or hearer.'[29]

One may suggest that Ross's postulation of a performative analysis[30] in the form of a superordinate structure containing the NP 'aham' (I) may account for structures like 45′. But, the performative analysis of declarative sentences does not appear to be strongly motivated in the case of Sanskrit.

In a performative analysis, the superordinate structure 'must have first person subject' and 'usually

29. Fillmore, C. J., (1968), p. 80.
30. Ross, J. R., (1970), pp. 222-272.

have second person direct or indirect objects in deep structure.'[31] Ross considers the occurrence of the NP 'aham' 'I' in the superordinate performative structure the most significant and gives 'seven arguments suggesting the existence of a higher subject I.'[32]

Ross's other arguments[33] relate to the occurrence of the reflexive 'myself' in different structures without the co-occurrence of the pronominal, which necessitates that there is a superordinate structure with 'I', which would be deleted through a performative deletion-rule, after it has led to the reflexivisation of the co-referential NP. In Sanskrit, such exigency does not arise, as would be shown by sentences 46 and 46'. In 46 the reflexive does not occur.

46. patram - rāmeṇa - mayā - (svayam) - ca - alikhyata
O nom A i A i
letter — by r. — by me - (self) — and - was written
(the letter was written by r. and by myself)

46'. mama/mayā — samāḥ — chātrāḥ
my/ with me — like (equals) — students
(students like myself)

Thus, it seems that as Sanskrit has no exact parallel to the English reflexive, and no other motivation is apparent, Ross's arguments do not carry over to Sanskrit.

Now consider a sentence like 47 for which Fillmore[34] would propose a schema like NP—→N (L).

47. parvatasya — mekhalā
O g nom
of mountain — slope
(slope of the mountain).

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31. Ross, J. R., (1970), p. 222.
32. Ross, J. R., (1970), pp. 226, 236.
33. Ross, J. R., (1970), pp. 225-236.
34. Fillmore, C. J., (1968a), p. 80.

But according to him, 'mekhalā (slope) would be a 'locational noun' and 'parvatasya' (of mountain) also would be an 'adnominal, L. The NP 'mekhalā' indicates a part-whole relation and may be assigned a case-category which is not necessarily L. But, there appears to be no reason to assign the case-category L to 'parvatasya'. An inanimate Genitive need not be L always (cf. sentences 40-43), and it is more appropriate to specify it as O like the Genitives in 40-43 above. Thus the schema proposed by Fillmore may be modified as NP—→N (O). In construction 47 above, the relation between the Genitive and the associated NP is a part-whole and thus inalienable. A construction like 47′ is unacceptable. It may be noted that even in the sense of locational reference the occurrence of 'pārśve' would not make 47′ acceptable.

47′. * paravatasya pārśve — mekhalā
of mountain — slope

IV. 3. 2. 1. 1. 7. Now, take the problem of some nouns like 'pārśve' (proximity), 'purastāt' (in front), 'parastāt' (beyond) which indicate a location or direction 'with reference to the associated object but not considered as a part of it.'[35] Such nouns[36] are semantically significant[37]. Such nouns involve some reference-point and the relationship between them and the objects with reference to which they are associated, is akin to the inalienable relationship between the possessor and the possessed item. Such nouns convey spatial/temporal orientation and can be conceived only in relation to the associated object.

35. Fillmore, C. J., (1968a), p. 81.

36. They are referred to as P(ost) P(osition), though no restriction to sequential ordering is assumed.

37. Robinson, J. J., (1969), pp. 58-59. Cf. Kachru, Y., (1969), p. 39.

The occurrence of 'pārśve as in sentences 48-50 is not permissible. Sentences 48′-50″ are unacceptable.

48 vidyālayasya — purastāt
g
of school — in front
(in front of the school)

49. bhavanasya — paścāt
g
of house — behind
(behind the house)

50. mandirasya — pārśve
g
of temple — near
(near the temple)

48′.* vidyālayasya — pārśve — purastāt
of school — front of

48″.* purastāt — vidyālayaḥ — vidyate
in front — school — is

49′.* bhavanasya — pārśve — paścāt
of house — behind

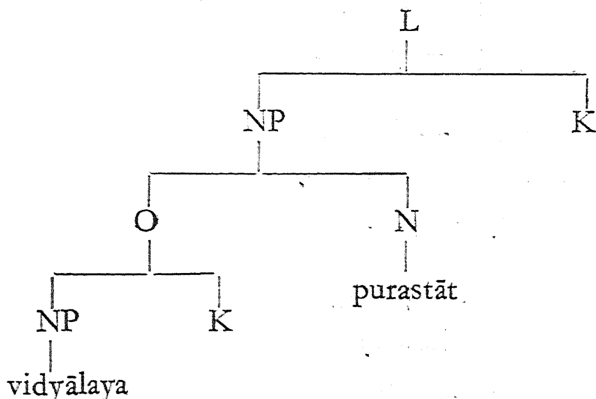
49″.* paścāt — bavanam — asti
behind — house — is

50′.* mandirasya — pārśve — pārśve
of temple — near

50″.* pārśve — mandiram — asti
near — temple — is

Sentences like 48″, 49″ 50″ are acceptable in discourse, but they would be interpreted in reference to some object other than that in 48″, 49″, 50″. All such constructions 48-50 are accounted for by a schema like NP⟶ N(O), the NP being dominated by L. Thus the underlying structure of 48 would be as represented in figure XLVIII.

Figure XLVIII



Constructions 49-50 also have an underlying structure similar to that in figure XLVIII. A morphophonemic rule, later in the derivation, attaches the genitive-affix to O dominated by L.

IV. 3. 2. 2. In the foregoing sections (IV. 3. 2. 1. 1.—IV. 3. 2. 1. 1. 7), two schemata are proposed : (i) NP ⟶ N(D) and (ii) NP⟶ N(O), to account for the inalienably related Genitives and associated/possessed items. The schema (i) relates to kinship and body-part relations (sentences 10, 21, 25-32, 36) and the schema (ii) relates to part-whole relations (inanimate entities (sentences 40-43, 48-50)). In sentences 48-50 the case-category L and in sentences 40-43, 47 the case-category O dominate the NP which is expanded according to the schema NP⟶ N(O). In sentences 44, 45 the caste-category L dominates the NP which is expanded following the schema NP⟶ N(D). For all the constructions containing Genitives which express inalienable relation, a schema $NP \rightarrow N\left(\begin{Bmatrix} D \\ O \end{Bmatrix}\right)$ may be proposed.

IV. 3. 2. 3. Before taking up for analysis constructions which are characterised by an alienable relationship between

the possessor and the possessed/associated item, one point needs to be considered in the context of the derivation of the embedded D/O. A schema like $NP \longrightarrow N\left(\begin{Bmatrix} D \\ O \end{Bmatrix}\right)$ somewhat modifies the notion of case, which has been developed in relation to verbs. Postulation of a schema like the above implies an extension of the notion of case in relation to nouns as well. Now, just as selectional features of verbs, determine a case-frame,[38] nouns like *svasā, hastaḥ, dvāram pārśvam,* (*sister, hand, entrance, side*) may be considered to have aspects of meaning appropriate to selecting a case. But, it may be difficult to accept that nouns like 'aśvaḥ/āsandī' (house/chair) may have aspects of meaning which induce the selection of a particular case.[39] This difficulty may be overcome in the case of a sentential derivation of Genitives which indicate an alienable relation between the possessor and the possessed/associated item (IV. 3. 2. 4.).

IV. 3. 2. 4. For constructions which indicate alienable possession, Fillmore, proposes a sentential derivation i. e. $NP \longrightarrow N\ (S)$. It has been mentioned earlier that such constructions are distinguished from those showing inalienable possession, by the occurrence of 'pārśve' in the former set of sentences (1, 11, 17, 44).

Consider sentences like 51 which is derived from sentence 51′.

51.	chātrasya	—	pustakam	—	asti
	G g				
	of student	—	book	—	is

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38. Stockwell, R. P., et. al. (1968), p. 721 : 'there appears to be a very close relationship...between aspects of the central essential meaning of a verb and the case-frame it selects.'

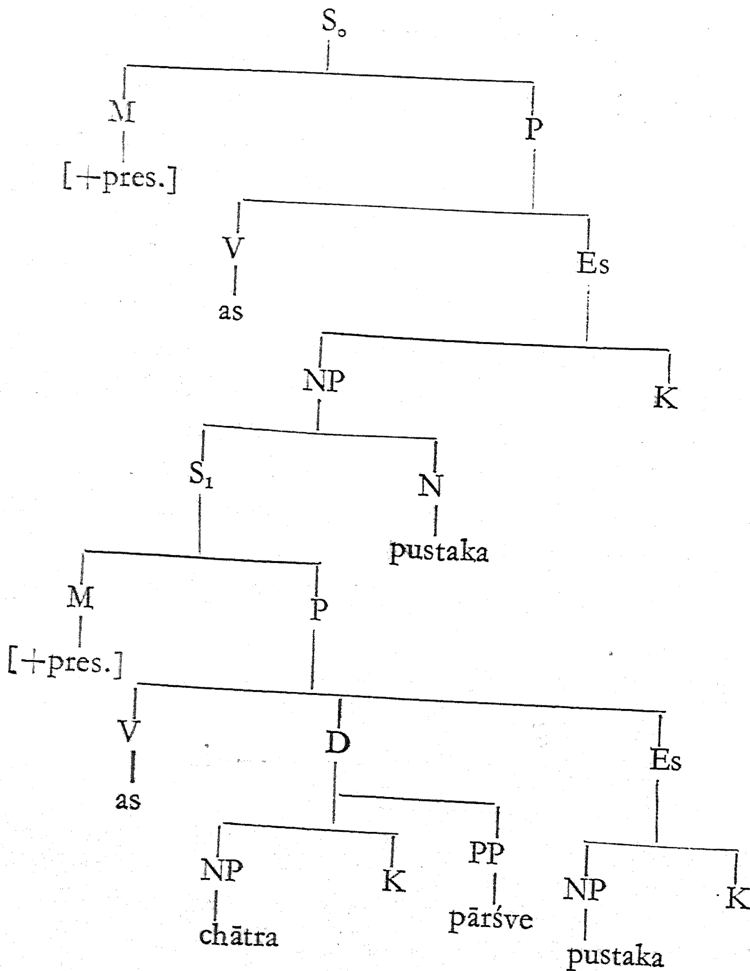
39. Stockwell, R. P., et. al. (1968), pp. 720-21.

(the student has a book / there is the book of the student)

51′. chātrasya pārśve — pustakam — asti
G g
of student — book — is

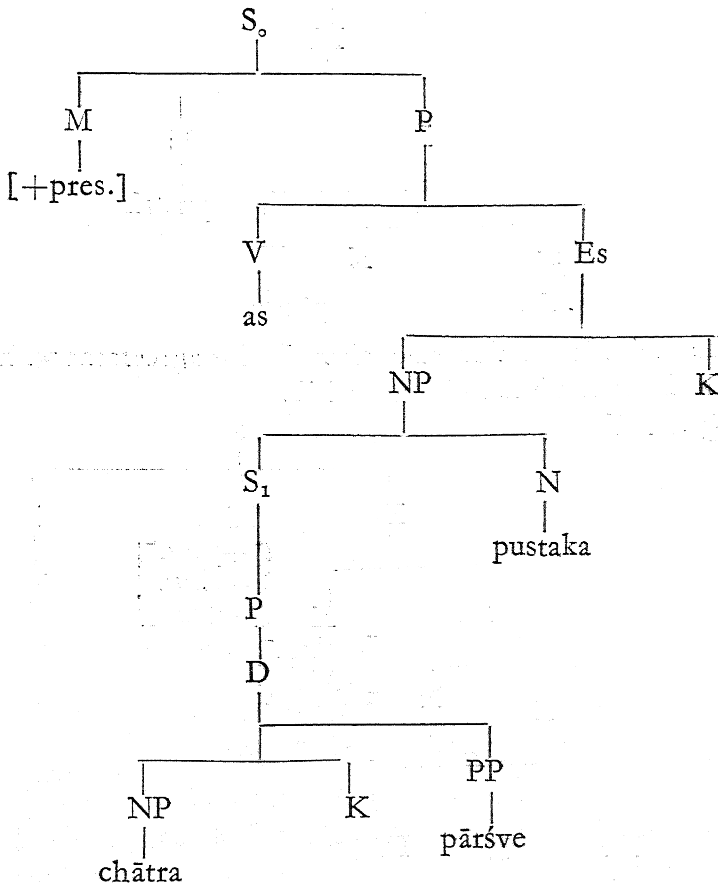
In accordance with the schema, sentences 51, 51′ have the underlying structure as in figure XLIX.

Figure XLIX



Fillmore suggests that the NP under Es in S_1 is a co-referential copy[40] of the N 'pustaka' under Es in S_o. This NP can be replaced by a relative-marker to derive a relative-clause from S_1. Es in S_1 is selected for subjectivalisation and then there is deletion of the items under Es and V under identity. Consequently, the node M is also deleted. The result (omitting intervening details) is as represented in figure L.

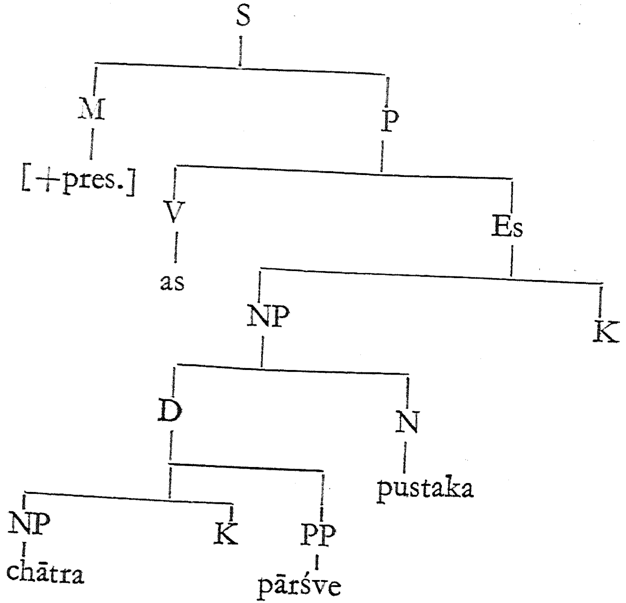
Figure L



40. Fillmore, C. J., (1968a), p. 49.

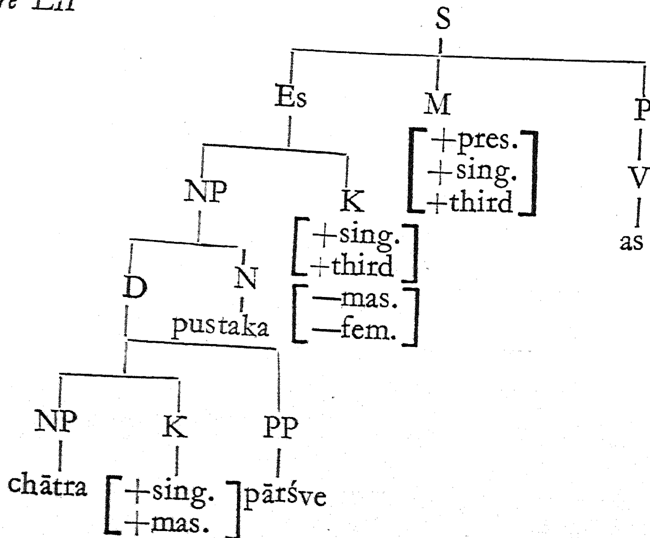
The node-pruning rule deletes the nodes S_1 and P. The result is as represented in figure LI.

Figure LI



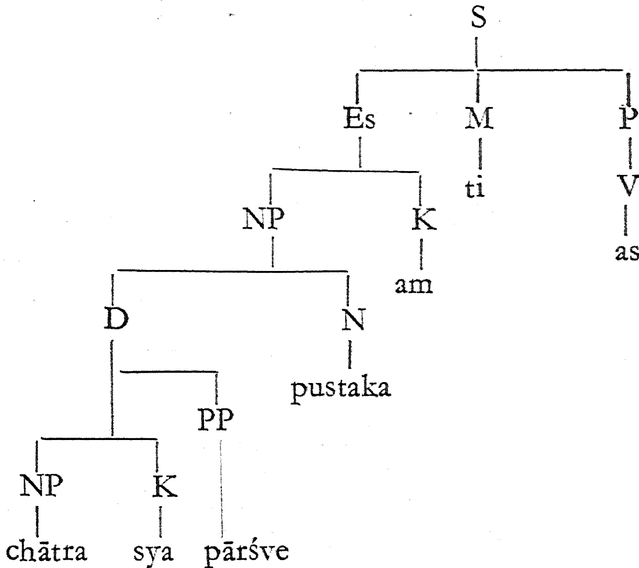
The subjectivalisation-rule selects Es for agreement with the V and the result is as in figure LII.

Figure LII



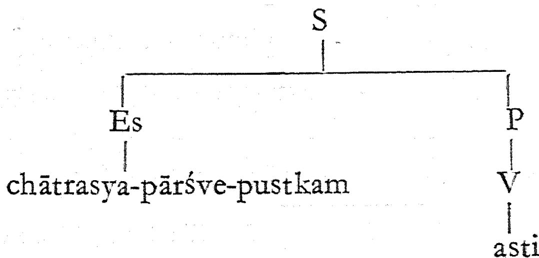
The affix-substitution rule replaces the features with affixes, a morphophonemic rule obligatorily attaches the genitive ('sya') to K under D due to the co-occurrence of 'pārśve'. The result is as represented in figure LIII.

Figure LIII



The final form is as in figure LIV.

Figure LIV



A 'pārśve' - deletion rule optionally deletes 'pārśve'. Thus sentences 51, 51′ are derived from figure LIV. It may be added that a sentence like 51 above is ambiguous. In addition to the meaning 'the student has a book', it may be interpreted in the sense of 'there is the book of the student'.

But, in this latter sense the Es 'pustaka' is interpreted as [+definite].

Consider, lastly, a sentence like 52 which is four-way ambiguous.

52. rāmasya — citram — asti
G g Es nom
of r. — picture — is
(there is the picture of r./r. has a picture)

Sentence 52 may be interpreted like sentence 51 above and its derivation (similar to that of sentence 51 (figures L-LIV)) would be from a structure underlying sentence 52′.

52′. rāmasya pārśve — citram — asti
G g Es nom
of r. — picture — is

Alternatively, sentence 52 may be derived from structures underlying sentences 53, 54.[41]

53. citram [rāmaḥ - citram - aracayat] - asti
Es A F
picture [r. - picture - composed] - is

54. citram [△ - rāmasya - citram - aracayat]-asti
Es A D F
picture [(someone) - of r. - picture - composed]- is.

41. Cf. Chomsky, N., (1970a), pp. 200-07 : Chomsky would consider a construction like 'J's picture....⇐((i) the picture that J. has, (ii) the picture of J.), to be related to the interpretation (iii) the picture that J. painted, 'with a generalisation of the notion 'inalienable possession' to a kind of 'intrinsic connection' (pp. 205-206). Cf. Kachru, Y., (1969), p. 44, (1966), pp. 107-108 : Kachru would like to handle the third interpretation separately from the other two.

The derivation of sentences 53, 54 which have the underlying structures as represented in figures LV and LVI respectively, involves the process of nominalisation which has been discussed earlier (IV. 3. 1. 1.), and accordingly it will not be discussed further here.

Figure LV

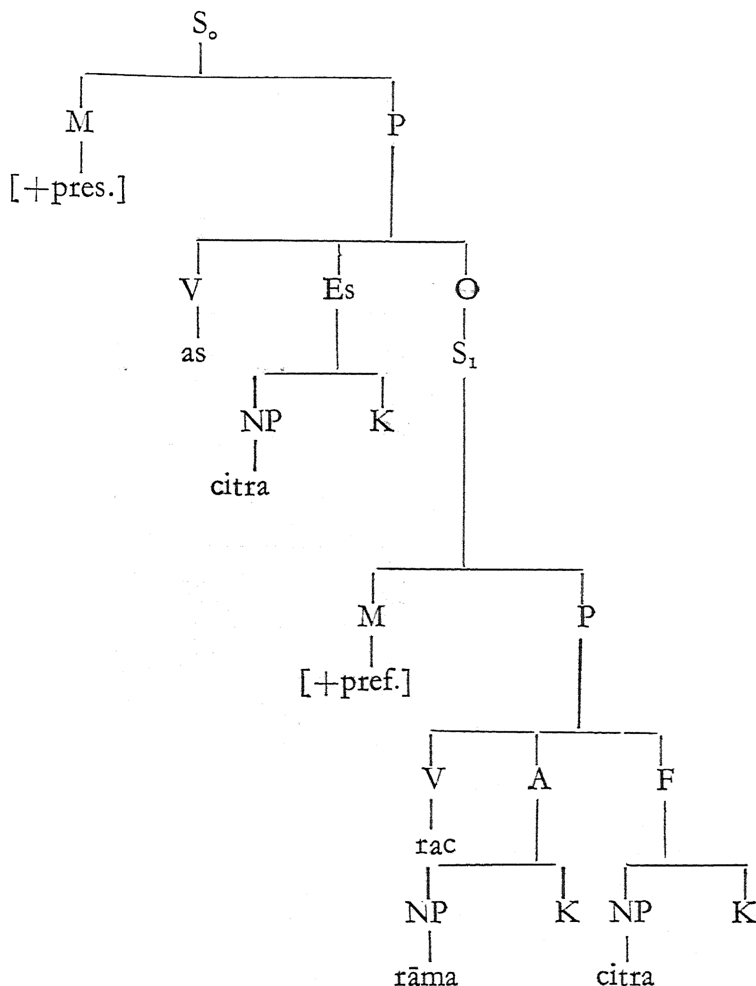
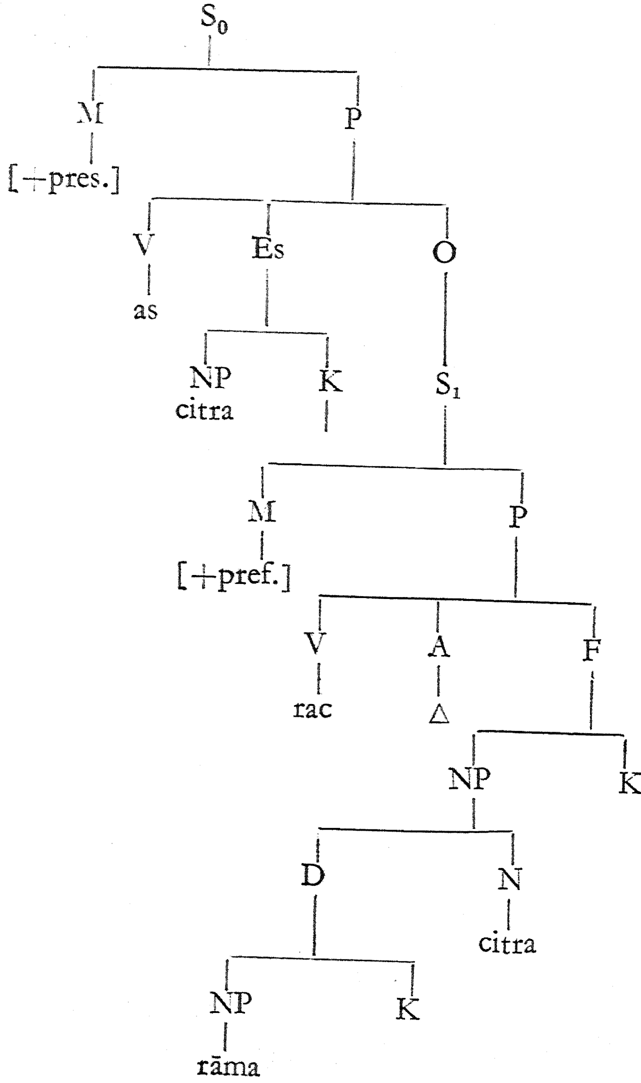


Figure LVI


S_0
M
[+pres.]
P
V
as
Es
NP
citra
K
O
S_1
M
[+pref.]
P
V
rac
A
△
F
NP
K
D
N
citra
NP
rāma
K

V

LEXICON AND RULES

V. 1. In this chapter it is proposed to deal with the nature of the lexion in FCG (section V. 1. 1), and specify a set of lexical entries for verbs (V. 1. 2), and a set of rules related to both the base and transformational components (V. 1. 3).

V. 1. 1. As mentioned earlier (I. 2. 1. 4. f. n. 78), FCG is explicated within the conceptual framework of TG grammar. However, the assumptions (I. 2. 1. 3.-I. 2. 1. 3. 4.) of FCG lead to some significant modification in the lexicon.

V. 1. 1. 1. The base-component of a TG model grammar is considered to consist of a categorial component with unordered context-free rewriting rules called P(hrase) S(tructure) rules, and a lexicon containing a set of unordered lexical entries. Grammatical properties which are not relevant for categorial component (i. e. P. S.) rules and those which are highly idiosyncratic could be assigned to the lexicon.

As Chomsky favours selection of V's in terms of the prior selection of nouns and considers subject-object as relational terms in the base-component, the lexicon assumes a complex form. Two sets of rules are proposed : (i) strict sub-categorisation rules analyse a CS(V) in terms of contextual (categorial) features and (ii) selectional rules (or selectional restrictions/restrictions of co-occurrence) analyse a CS in terms of syntactic features of the frame in which it (CS) occurs.[1]

1. Chomsky, N., (1965), pp. 64-74.

FCG favours the prior selection of V's followed by the selection of other items in terms of V's (I. 2. 1. 3. 5.). There is more than one reason to commend this position : (i) verbs 'in a very real sense are selectionally dominant',[2] (ii) prior and random selection of nouns may lead to a large number of strings which are to be discarded later on, (iii) prior selection of verbs has 'side-effects.'[3]

This position of FCG, along with the consideration that subjects and objects do not play a role in deep structure, leads to a change in the specification of the lexicon. In the lexicon, selectional restrictions, unlike strict sub-categorisation rules, are not concerned with the domain of one constituent. Selectional restrictions range over a subject noun and a verb as well as an object noun and a verb.[4] Accepting that subject and object are surface-phenomena[5], i. e. they do not originate in the base-component, there appears to be no need to retain this distinction between sub-categorisation rules and selectional restrictions.

V. 1. 1. 2. FCG suggests that case-relationships may be specified in the lexicon in terms of frame-features. These frame-features are spelled out in a case-frame which contains the cases with which a verb co-occurs to form a P(ropo-

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2. Stockwell, R. P., et. al. (1968), p. 935.

3. Stockwell, R. P., et. al. (1968), p. 934 : 'side-effects are effects on the other nodes in a tree after an item has been inserted.' If verbs are selected first, the case-frames for the verbs indicate the possible case-category nodes in the tree.

4. Robinson, J. J., (1969), p. 71 : 'the examples of selectional restrictions exhibit only those imposed by the inherent features of nouns on verbs with which they occur in subject or object relation.'

5. See I. 2. 1. 4. (f. n. 84).

sition). Thus a verb like 'hanti' (kill) has a case-frame like I.

I. hanti : [+ V] : [A, (I), R ——]

indicating, thereby, that the verb co-occurs with Agentive, Receptive and Instrumental which may or may not be present in a construction like 1.

1. duṣṭaḥ — (churikayā) — paśum — hanti
A I
wicked — with knife — animal — kills
(the wicked man kills the animal with a knife)

In the above sentence 1, I is an optional case-category.

V. 1. 1. 3. Each lexical entry in a case-frame has associated with it a CS which indicates category -features, contextual features and inherent features.

A lexical entry like 'hanti' (kill) has a category-feature like [+V]. Each CS indicates only one category feature which is specified positively.

The case-frame like I given above, shows contextual features i. e. the array of cases with which a lexical entry like 'hanti' can co-occur. FCG proposes that the optional occurrence of an item in the case-frame may be indicated by parentheses, as in the case-frame I given above.

Again, FCG suggests linked-parentheses to indicate that one of the linked items is obligatory. Thus, for sentences like 2 and 3, the case-frame would be shown like II.

II. pacati - : [+V]
(cooks) [(A, F) (L) ——]

2. sūdaḥ — sthālyām — bhaktam — pacati
A L F
cook — in pot — rice — cooks
(the cook cooks rice in a pot)

3. sthālī — pacati
L
pot — cooks

FCG proposes to show inherent features of lexical entries by a schema like

$$N \longrightarrow [+\text{animate}]^{A,D} / [X \text{——} Y]$$

It may be noted that the nouns like 'sūdaḥ' (cook), 'duṣṭaḥ' (wicked) are not inherently A (or any other case-category for that matter). The only inherent feature that is relevant to them is [+ animate]. The schema is syntactic and says that a construction would be unacceptable if the feature [—animate] is specified for an item which is positively specified as A/D.

V. 1. 2. In this section, a list of verbs with their case-frames, is given. The verbs are specified in their [+ singular], [+ third], [+ person] forms. Polysemous forms are treated with only one reading.

1. *arhati* : [+ V]
   (deserves) : [D, O, (SO), S ——]
2. asti : [+ V]
   (is) $$Es \left\{ \begin{array}{l} (T) \\ (L) \\ \left(\left\{ \begin{array}{l} GO,\ (SO) \\ Ext,\ (GO),(SO) \end{array} \right\} \right) \end{array} \right\}$$
3. *icchati* : [+ V]
   (desires) [D, S ——]
4. kathayati : [+ V]
   (says) [A, (R), O ——]
5. karoti : [+ V] [A, O, ——]
   (does))
6. krīḍati : [+ V]
   (plays) [A, (O)(I) ——]

7.	krudhyati (gets angry)	:	[+ V]	[D, R ——]
8.	kṛśyati (becomes feeble/slim)	:	[+ V]	[D, (I) ——]
9.	kṣipati (throws)	:	[+ V]	[A, $\left\{\begin{matrix}O\\R\end{matrix}\right\}$,GO,(Pa),(I),(SO—]
10.	khanati (digs)	:	[+ V]	[A, O, (I), (L) ——]
11.	khādati (eats)	:	[+ V]	[A, (O), (I), (L) ——]
12.	garjati (roars)	:	[+ V]	[A, (I), (L) ——]
13.	gāhate (dives)	:	[+ V]	[A, L ——]
14.	gūhati (conceals)	:	[+ V]	[A, O, (I), (L), (SO) —]
15.	gāyati (sings)	:	[+ V]	[A, O ——]
16.	grasate (swallows)	:	[+ V]	[A, O, (L)——]
17.	gṛhṇāti (takes)	:	[+ V]	[A,O,SO,(I),(L)——]
18.	jighrati (smells)	:	[+ V]	[A, O, (I) ——]
19.	calati (moves)	:	[+ V]	[$\left\{\begin{matrix}A\\O\end{matrix}\right\}$, I, (L) ——]
20.	carati (grazes)	:	[+ V]	[A, O, (L) ——]

21.	cinoti (gathers)	: [+ V]	[A,O,(SO), (I),(L)—]
22.	corayati (steals)	: [+ V]	[A, O, (L), ——]
23.	cumbati (kisses)	: [+ V]	[A, L ——]
24.	cūrṇayati (crushes)	: [+ V]	[A, O, (I), (L) ——]
25.	*ceṣṭate* (tries)	: [+ V]	[A, S ——][6]
26.	chinatti (cuts)	: [+ V]	[(I), A, O, (L)) ——]
27.	jayati (wins)	: [+ V]	[A, (SO), (O) ——]
28.	jīvati (is alive)	: [+ V]	[D, (Ext), (L) ——]
29.	jānāti (knows)	: [+ V]	[D, O ——]
30.	jvalati (burns)	: [+ V]	[O, I ——]
31.	tanoti (stretches)	: [+ V]	[A, O, L, (I), (Ext), (SO), (GO) ——]
32.	tarjati (threatens)	: [+ V]	[A, R ——]

6. No theoretical position is implied by this abbreviatory device. As mentioned earlier (I. 2. 1.3. 5.), sentences are embedded under a case (cf. P. S. rules VI. 1. 3. 1.). The occurrence of S in the case-frames of the underlined verbs, indicates that these verbs do not have simple underlying structures.

33.	tāḍayati	:	[+ V]	
	(beats)			[A, R, (I), (L) ——]
34.	tṛpyati	:	[+ V]	
	(becomes satisfied)			[D ,I ——]
35.	tarati	:	[+ V]	
	(swims/crosses)			[A, L ——]
36.	*tvarate*	:	[+ V]	
	(hurries)			[D, S ——]
37.	daṃśati	:	[+ V]	
	(bites)			[A, R, (I) ——]
38.	dahati	:	[+ V]	
	(burns)			$\left[\begin{Bmatrix} \text{A, O, (I)} \\ \text{I, (O)} \end{Bmatrix} \text{——} \right]$
39.	dadāti	:	[+ V]	
	(gives)			[A, O, GO, (I) ——]
40.	dīvyati	:	[+ V]	
	(gambles)			[A, I, (O) ——]
41.	diśati	:	[+ V]	
	(orders)			[A, R ——]
42.	dogdhi	:	[+ V]	
	(milks)			[A, (O)(R), (L) ——]
43.	paśyati	:	[+ V]	
	(sees)			$\left[\text{D, } \begin{Bmatrix} \text{O} \\ \text{R} \end{Bmatrix} \text{, (I) ——} \right]$
44.	dhāvati	:	[+ V]	
	(runs)			[A, (Pa), (L) ——]
45.	dhunoti	:	[+ V]	
	(shakes)			[(A)(I), O ——]
46.	dharati	:	[+ V]	
	(holds)			[A, O, (I), (L) ——]

47.	namati (salutes)	:	[+ V]	[A, R, (I) ——]
48.	naśyati (perishes)	:	[+ V]	[$\left\{\begin{matrix}D\\O\end{matrix}\right\}$, I ——]
49.	nindati (speaks ill of)	:	[+ V]	[A ,R ——]
50.	nṛtyati (dances)	:	[+ V]	[A, (L), ——]
51.	pacati (cooks)	:	[+ V]	[$\left\{\begin{matrix}A, (O)(F), (L), (I)\\O\\L\end{matrix}\right\}$ —]
52.	paṭhati (reads)	:	[+ V]	[A, (O), (L) ——]
53.	patati (falls)	:	[+ V]	[$\left\{\begin{matrix}A\\O\end{matrix}\right\}$ (SO), (GO), (I)–]
54.	pibati (drinks)	:	[+ V]	[A, O, I ——]
55.	pīḍayati (hurts)	:	[+ V]	[(A)(I), R ——]
56.	puṣpyati (blooms)	:	[+ V]	[O ——]
57.	pūjayati (worships)	:	[+ V]	[A, (O)(I) ——]
58.	pūrayati (fills)	:	[+ V]	[(A), O, L ——]
59.	pṛcchati (asks)	:	[+ V]	[A, R, O ——]
60.	plavate (floats)	:	[+ V]	[$\left\{\begin{matrix}A, L, (I)\\O, L,\end{matrix}\right\}$ ——]

61. badhnāti : [+ V]
(binds) $[\,A, \begin{Bmatrix} R \\ O \end{Bmatrix}, (L), (I) \text{——}\,]$

62. bhanakti : [+ V]
(breaks) $[\,\begin{Bmatrix} A, O, (I) \\ O \end{Bmatrix} \text{——}\,]$

63. bhāti : [+ V]
(shines) [O, (I) ——]

64. bhikṣate : [+ V]
(begs) [A, O, (SO) ——]

65. bhinatti : [+ V]
(cuts) $[\,\begin{Bmatrix} A, O, (I) \\ I \\ O \end{Bmatrix}\,]$

66. bibheti : [+ V]
(fears) $[\,D, \begin{Bmatrix} R \\ O \end{Bmatrix} \text{——}\,]$

67. bhṛjjati : [+ V]
(fries) [A, (O)(F), (L), (I)—]

68. bhramati : [+ V]
(wanders, walks) [A, (L) ——]

69. *manyate* : [+ V]
(considers) [A; S ——]

70. mantrayati : [+ V]
(advises) [A, R ——]

71. mathnāti : [+ V]
(churns) [A, (F)(O), (I) ——]

72. māti : [V +]
(measures) $[\,A, \begin{Bmatrix} O \\ R \end{Bmatrix}, (I), (L) \text{——}\,]$

73. milati : [+ V]
(comes together, joins) [A, R ——]

74. milati : [+ V]
(closes (as the eyes)) [O ——]

75. mriyate : [+ V]
(dies) [D, (I) ——]

76. yāti : [+ V]
(goes) [A, (SO), (GO), (Ext) (Pa) ——]

77. (*ā*) *rabhate* : [+ V]
(begins) [A, S ——]

78. rocate : [+ V]
(pleases) [O, R ——]

79. ruṇaddhi : [+ V]
(obstructs) [A, R, (L), (I) ——]

80. rohati : [+ V]
(grows) [O, (I), (L) ——]

81. likhati : [+ V]
(writes) [A, F, (I), (GO) ——]

82. lunāti : [+ V] [{ A, (I), O / I / O } ——]
(cuts)

83. vapati : [+ V]
(shaves) [A, (I), O —]

84. vāti : [+ V]
(blows) [O, (L) ——]

85. viśati : [+ V]
(enters) [A, GO ——]

86. vartate : [+ V]
(is, exists, is present) [D, L ——]

87. *śaknoti* : [+ V]
(can ,is able) [A, S ——]

88.	*śaNkate* (doubts)	: [+ V]	[A, S ——]
89.	śikṣate (learns)	: [+ V]	[A, (SO), O ——]
90.	śete (sleeps)	: [+ V]	[A, (L) ——]
91.	śṛṇoti (hears)	: [V +]	[D, $\left\{\begin{matrix}R\\O\end{matrix}\right\}$ ——]
92.	siñcati (sprinkles)	: [+ V]	[A, O, (L) ——]
93.	snāti (bathes)	: [+ V]	[A, (I), (L) ——]
94.	spṛśati (touches)	: [+ V]	[A, $\left\{\begin{matrix}O\\R\end{matrix}\right\}$, (I) ——]
95.	hanti (kills)	: [+ V]	[A, R, (I) ——]
96.	hasati (laughs)	: [+ V]	[A ——]
97.	hvayati (calls)	: [+ V]	[A, R ——]

V. 1. 3. In this section a list of rules is given. Section V. 1. 3. 1. contains the P(hrase) S(tructure) rules and section V. 1. 3. 2. specifies a selection of more important T(ransformational) rules.

V. 1. 3. 1. P. S. rules :

given # S #

1. S $\longrightarrow$ S^n ca ; $n \geq 2$
2. S $\longrightarrow$ M P

3. P ⟶ V $C_1 \ldots C_n$:
C_i=A/D/R/O/F/I/L/SO/GO/Ext/Pa/Es/T

4. C ⟶ $\left\{\begin{matrix} NP+K & (+PP) \\ S^7 & \end{matrix}\right\}$

5. NP ⟶ NP^n ca saha : $n \geq 2$

6. NP ⟶ N $\left(\left\{\begin{matrix} S \\ D \\ O \end{matrix}\right\}\right)$

7. N ⟶ CS

8. V ⟶ CS

9. M ⟶ (Tense)(Aspect)

10. Tense ⟶ $\left\{\begin{matrix} \text{past} \\ \text{present} \\ \text{future} \\ \text{modal} \end{matrix}\right\}$

11. Aspect ⟶ $\left\{\begin{matrix} \text{perfective} \\ \text{progressive} \\ \text{modal} \end{matrix}\right\}$

V. 1. 3. 2. In this section some important T(ransformational) rules are specified.

T rules :

I Nominalisation-rule (optional)

$[_S X [_S M [_P V Y]_P]_S Z]_S$

SD : 1 2 3 4 5

SC : 1 2 3 4 5

$\begin{bmatrix} +\text{Nom.} \\ \pm\text{adj.} \end{bmatrix}$

---

7. Not all the cases may dominate S. However, the restrictions on embedding S are not considered, as they are outside the scope of the present study.

II M(odality)-deletion rule

	[W	[X	M	[VNom	Y]	]Z]
	S	S		P	P	S S
SD :	1	2	3	4	5	6
SC :	1	2	Ø	4	5	6

III Subjectivalisation-rule (optional)

	X	[	M	[	V	C	Y	]	]	Z
		S		P				P	S	
SD :	1		2		3	4	5			6
SC :	1		42		3	Ø	5			6

conditions : 1. 4= A/D/O/ES

or 2. if 4=O/F/I/L which dominates 'svayameva' as well then 5≠ C

or 3. if 4 = I and indicates a natural phenomenon then 5 ≠ A/D

IV. Copula-deletion rule (optional)

	X	[	C	M	[	Cop	Y	]	]	Z
		S			P			P	S	
SD :	1		2	3		4	5			6
SC :	1		2	3		Ø	5			6

Conditions: 1. M is [+ pres.]

2. if Y = VNom it does not show the stem-element 'at'

V. Passivisation-rule (optional)

	X	[	M	[	V	C	Y	]	]	Z
		S		P				P	S	
SD :	1		2		3	4	5			6
SC : (a)	1		42		3 +ya	Ø	5			6

conditions : 1. 4=R/F/O (and GO when V dominates a synonym of 'yā' (ti))
2. 5=A/D (or I indicating a natural phenomenon)

elsewhere : SC : (b)

SC : (b) 1 ∅ 3+2+ya 4 5 6

VI M(odality)-attachment rule

	W	[S	X	M	[P	V	Y	]P	]S	Z
SD :	1		2	3		4	5			6
SC :	1		2	∅		4+3	5			6

(this rule follows Affix-substitution rule which is not given here)

VI

CONCLUSION

VI. This chapter sums up those points of interest in FCG which have arisen in the analysis of the foregoing chapters.

VI. 1. As mentioned earlier (I. 2. 1. 3. 5., I. 2. 1. 3. 6), FCG holds that a case-system could be accepted as a linguistic universal. Unless a large number of languages is investigated from this point of view, nothing in this connection can be attested conclusively. At the present stage of research there appears to be insufficient evidence for or against this position.

VI. 2. According to FCG cases are syntactically justified semantic primitives.[1]

The cases that have been discussed in Chapter I, are distinguished from each other on syntactic as well as semantic criteria. However, the distinction between A and D is motivated by syntactic consideration only (II. 1. 1).

In so far as the semantic justification for cases is concerned, O appears to pose a problem. Its definition remains imprecise and its use as a 'waste-basket'[2] implies that there is some element of indeterminacy in the specification of this case-category.

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1. Fillmore, C. J., (1968a), p. 5 : cases are 'semantically relevant syntactic relationships'. id. (1971), p. 254 : 'deep structure cases ... could be discovered and justified by syntactic criteria...'; pp. 246-247 also. It appears that Robinson, J. J. (1969) is not correct when she says that in FCG cases are syntactic primitives (p. 62).
2. Fillmore, C. J., (1971), p. 251.

Again, there are certain constructions in which a case-category (e.g. O/I) is not consistent in its syntactic behaviour (e. g. in relation to the process of passivisation : II. 2. 1. 3. 1., II. 2. 1. 3. 2, II. 3. 2. 2.). This inconsistency may be accounted for by certain features on the lexical items or the lexical items themselves. However, it indicates that the cases by themselves are not adequate. If ad hoc features need to be specified then the major justification for cases seems to disappear.

In certain constructions (II. 4. 7. 2.), there is semantic distinction between surface-realisations of the same case-category. There appears no way to account for this except in terms of their morphological characteristics.

VI. 3. The proposal of FCG that 'case-form' or 'surface-cases' are language-specific and may be realised by different syntactic devices like inflexion, pre-/post-positions, word-order, (which is, of course, mentioned by others as well (I. 1. 4., f. n. 28)) appears to be correct.

VI. 4. FCG maintains that there is one occurrence of a case in a simple sentence. But there are instances where this principle breaks down.

Cases like L and Pa (II. 4. 4, II. 4. 8.) appear to go against this principle of 'one-instance-per-clause'. The case-category I, indicating emotive states also, poses difficulty (II. 3. 4.) as there are simple sentences which allow two occurrences of I. Even the proposal of deriving such I's from superordinate structure does not help.

To get round the above problem, it is suggested that this non-application of the principle may be considered specific to L, Pa and I.

VI. 5. The position of FCG that relationships involving subject and object are surface-phenomena, appears

to be correct and no problem with reagrd to it, has arisen in this analysis.

VI. 6. In addition to the above (VI. 1-VI. 5), there are a few points that need to be mentioned.

VI. 6. 1. In the case of NP-asti-NP constructions (Chapter III), Es and T appear to be different from other case-categories, with regard to case-specification (III. 1. 1., III. 1. 2.).

VI. 6. 2. Lastly, in so far as the descriptive adequacy of FCG (I. 2. 1. 3. 1.) is concerned, the analysis in the foregoing chapters, is an insufficient evidence for saying anything conclusive. However, FCG appears to be observationally adequate for the description of the Sanskrit language.

BIBLIOGRAPHY

Allen. W. S., (1953) *Phonetics in Ancient India*, Oxford University Press.

Anderson, J. M., (1971) *The Grammar of Case*, Cambridge University Press.

Ananthanarayana, H.S., (1970) 'The Kāraka Theory and Case Grammar', *Indian Linguistics*, 31 (1-2), pp. 14-27.

Apte, V. S., (1921) *A Guide to Sanskrit Composition*, Bombay, Gopal Narayena Co.

Bach, E., (1967) 'Have and Be in English Syntax', *Language*, 43 (2.I), pp. 462-485.

(1968) Nouns and Noun Phrases', *Universals in Linguistic Theory*, (eds.) Bach, E. & R. T. Harms, New York, Holt Rinehart and Winston, pp. 90-122.

Baron, N. S., (1971) 'On Defining 'Cognate Object',' *Glossa*, (5(1), pp. 71-79.

Belvalkar, S. K., (1915) *Systems of Sanskrit Grammar*, Poona.

Bennett, D. C., (1970) 'Some Observations Concerning the Locative Directional Distinction' (mimeographed), pp.1-35; also *Semiotica*, (V) (1) (1972), pp. 58-88.

Bhartṛhari, *Vākyapadīya of Bhartṛhari*, (eds.) Abhyankar, K. V., & V. P. Limaye, (1965), University of Poona, Poona.

Bhaṭṭojidīkṣita, Siddhānta-kaumudī, (ed.) Pandit Giridhar Sarma, (1964), Varanasi, Motilal Baṇarsidass.

Bhojadeva, (1100 A. D.) *Sarasvatī-kaṇṭhābharaṇa* (ed.) T. R. Chintamani, 1937, University of Madras.

Blake, F. R. (1930) 'A Semantic Analysis of Case', *Language*, Monograph No. VII, pp. 34-49.

Bloomfield, L., (1935) *Language*, London, George Allen & Unwin.

Burrow, T., (1955) *The Sanskrit Language*, London, Faber and Faber.

Cassidy, F. C., (1937) 'Case in Modern English', *Language* 13(3) pp. 240-245.

Chatterjee, S., (1967) 'Early Nyāya-Vaiśeṣika', *History of Philosophy : Eastern and Western*, Vol. I, (ed.) S. Radhakrishnan, London, George Allen & Unwin, pp. 219-230.

Chomsky, N., (1957) *Syntactic Structures*, The Hague, Mouton.

(1965) *Aspects of the Theory of Syntax*, Cambridge, M. I. T.

(1969) 'Deep Structure, Surface Structure and Semantic Interpretation' (mimeographed), Indiana University Linguistics Club; also *Semantics* (eds.) Steinberg, D. D. & L. A. Jakobovits, (1971), Cambridge University Press, pp. 183-216.

(1970a) 'Remarks on Nominalisation', *Readings in English Transformational Grammar*, (eds.) Jacobs, R. A. & P. S. Rosenbaum, Mass., Ginn and Co., pp. 184-221.

(1970b) 'Some Empirical Issues in the Theory of Transformational Grammar' (mimeographed), Indiana University Linguistics Club, p.p. 1-72.

Dougherty, R. C., (1970a) 'Recent Studies on Language Universals', *Foundations of Language*, 6(4), Dordrecht, D. Reidel Publishing Co., pp. 505-561.

(1970b) 'A Grammar of Coordinate Conjoined Structures I' *Language*, 46, (4) pp. 850-898.

(1971) 'A Grammar of Co-ordinate Conjoined Structures II', *Language*, 47, (2), pp. 298-339.

Edgren, H. (1885) *A Compendious Sanskrit Grammar*, London, Trübner & Co.

Faddegon, B., (1936) *Studies on Pāṇini's Grammar*, Amsterdam.

Fillmore, C. J., (1966a) 'A Proposal Concerning English Propositions', *19th Monograph on Languages and Linguistics*, (ed. Dinneen, F. P., Washington, D. C., Georgetown University, Press, pp. 19-33.

(1966b) 'Toward a Modern Theory of Case' *Project on Linguistic Analysis Report no.* 13. The Ohio State University Research Foundation, pp. 1-24; also in *Modern Studies in English* (*Readings in Transformational Grammar*), (1969), (eds.) Reibel, D. A. & S. A. Schane, New Jersey, Prentice-Hall Inc., pp. 361-75.

(1968a) 'The Case for Case' *Universals in Linguistic Theory* (eds.) Bach, E. & R. T. Harms, New York; Holt, Rinehart and Winston, pp. 1-88.

(1968b) 'Lexical Entries for Verbs', *Foundations of Language*, (4) pp. 373-393.

(1969) 'Types of Lexical Information', *Studies in Syntax and Semantics*, (ed.) Keifer, F., Dordrecht, D. Reidel, pp. 109-137; also (1971) *Semantics* (eds.) Steinberg, D. D. & L. A. Jakobovits, Cambridge University Press, pp. 370-392.

(1970a) 'The Grammar of Hitting and Breaking', *Readings in English Transformational Grammar*, (eds.) Jacobs,

Fillmore, C. J., R. A. & P. S. Rosenbaum, Mass., Ginn & Co., pp. 120-133.

(1970b) 'Subjects, Speakers and Roles', *Working Papers in Linguistics*, (No.4), The Ohio State University, Computer Information Research Centre, pp. 32-63.

(1971) 'Some Problems for Case-Grammar' *Working Papers in Linguistics*, No. 10; The Ohio State University, pp. 245-265 ; also in *Monograph Series on Languages and Linguistics* (eds.) O'Brien, R. J., (1971), Georgetown University School of Languages and Linguistics, pp. 35-56.

Gleitman, Lila R., (1969) 'Coordinating conjunctions in English', *Modern Studies in English : Readings in Transformational Grammar*, (eds.) Reibel D. A. and S. A. Schane, New Jersey, Prentice-Hall Inc., pp. 80-112; Reprinted from *Language* 41, (1965), pp. 260-293.

Goldstücker, T., (1861) *Pāṇini : his place in the Sanskrit literature*, Trübner & Co., London.

Gruber, J. S., (1967) 'Look and See', *Language*, 43, pp. 937-47.

Halliday, M. A. K., (1966) Some Notes on Deep Grammar', *Journal of Linguistics*, pp. 55-67.

Huddleston, R. D., (1970) 'Some Remarks on Case-Grammar' *Linguistic, Inquiry*, I (4), pp. 501-511.

Jhalkīkar, B., (1893) *Nyāyakos'a* Bombay, Govt. Central Book Depot.

Kachru, Y., '(1966) *An Introduction to Hindi Syntax* ; Deptt. of Linguistics, University of Illinois, Urbana.

(1970) 'A Note on Possessive Constructions in Hindi-Urdu', *Journal of Linguistics*, 6 (1), pp. 37-45.

Kielhorn, F., (1965) *Kātyāyana and Pāṇini* (reprint of 1876 edition), Osnabrück, Otto Zeller.

King, R. D., (1969) *Historical Linguistics and Generative Grammar,* New Jersey, Prentice-Hall, Inc.

Kiparsky, P. & J. F. Staal, (1969) 'Syntactic and Semantic Relations in Pāṇini, *Foundations of Language,* 5, pp. 83-117.

Kooij, J. G. (1971) *Ambiguity in Natural Language,* Amsterdam, North-Holland Publishing Co.

Kumar, B. S., (1976) 'Is There a Case for the Sambodhana Kāraka ?' paper presented in the VI All India Conference of Linguists, Tirupati.

Lahiri, P. C., (1933) *Studies in the Word-Order of Sanskrit Prose,* London University unpublished Ph. D. thesis.

Lakoff, G. & Stanley Peters, (1966) 'Phrasal Conjunction and Symmetric Predicates, in *Modern Studies in English : Readings in Transformational Grammar,* (eds.) Reibel, D. A., & S. A. Schane, New Jersey, Prentice-Hall Inc., pp. 113-142 (Reprinted from *Mathematical Linguistics and Automatic Translation*), Harvard Computation Laboratory Report No. NSF- 17, 1966, pp. VI-1 to VI-49.

Lakoff, G. (1968) 'Instrumental Adverbs and the Concept of Deep Structure', *Foundations of Language,* 4, pp. 4-29.

Lakoff, R. T., (1968) *Abstract Syntax and Latin Complementation,* Mass., Cambridge M. I. T. press.

Lehiste, I., (1969) 'Being and Having in Estonian', *Foundations of Language,* 5, pp. 324-341.

Lehmann, W. P., (1967) *A Reader in Nineteenth Century Historical Indo-European Linguistics,*

Bloomington, Indiana University Press.

Lehrer, A., (1970) 'Verbs and Deletable Objects'. *Lingua*, 25, pp. 227-253.

Lyons, J., (1966) 'Towards a National Theory of the Parts of Speech', *Journal of Linguistics*, 2, pp. 209-236.

(1967) 'A Note on Possessive, Existential and Locative Sentences', *Foundation of Language*, 3, pp. 390-396.

(1968) *Introduction to Theoretical Linguistics* Cambridge University Press.

Macdonell, A. A., (1911) *A Sanskrit Grammar*, London, Lnngmans Green & Co.

Mandal, K. K., (1968) *A Comparative study of the concepts of space and Time in Indian Thought*, Varanasi, Chowkhambha Sanskrit Series.

Matilal, B. K., (1966) 'Indian Theorists on the Nature of the Sentence (vākya)', *Foundations of Language*, 2, pp. 377-393.

Maxmüller, F., (1886) '*A Sanskrit Grammar*, (ed.)Macdonell, A. A., London, Longmans Green & Co.

McCawley, J. D., (1968) 'The Role of Semantics in a Grammar' *Universals in Linguistic Theory*, (eds.) Bach, E. & R. T. Harms, New York, Holt, Rinehart and Winston, pp. 124-169.

(1970) 'English as a VSO language,' *Language*, 46, pp. 286-299.

Miller, J., (1971) 'Some Types of Phrasal Conjunction in Russian', *Journal of Linguistics*, 7(1), pp. 55-69.

Misra, V. N., (1966) *The Descriptive Technique of Pāṇini*, The Hague, Mouton.

Monier-Williams, M., (1927) *A Practical Grammar of the Sanskrit Language*, (4th ed.), Oxford, The Clarendon Press.

Moore, T., (1971) 'A Case for Fewer Cases', mimeographed.

Patañjali (200 B. C.) *Vyākaraṇa-Mahābhāṣya*, (ed.) Killhorn, F., Bombay, Govt, Central Book Depot, Vol. I, 1892.

Vyākasaṇa-Mahābhāṣya, (ed.) M. Pandit Śivadatta D. kudala (1912), Bombay, Nirnayasagar press.

Pedersen, H., (1962) *The Discovery of Language*, Bloomington University Press, Paperback edition of *Linguistic Science in the Nineteenth Century* (tr. J. W Spargo), Cambridge, Mass., 1931.

Perry, E. D., (1885) *A Sanskrit Primer*, New York, Columbia University Press.

Rao, V. S., (1969) *The Philosophy of Sentence and its Parts*, New Delhi, Munshiram Monoharlal.

Robinson, J. J., (1970) 'Case', Category and Configuration', *Journal of Linguistics*, 6 (1), pp. 57-80.

Ross, J. R., (1967) *Constraints on Variables in Syntax*, Ph. D. thesis, M. I. T.

(1969) 'A Proposed Rule of Tree-pruning', *Modern Studies in English : Readings in Transformational Grammar*, (eds.) Reibel, D. A. & S. A. Schane, New Jersey, Prentice-Hall Inc., pp. 288-299, Reprinted from *Mathematical Linguistics and Automatic Translation*, Harvard Computation Laboratory, Report No NSF-17, 1966, pp. IV-1 to IV-18.

(1969a) 'OnDeclarative Sentences', *Readings in English Transformational Grammar*, (eds.) Jacobs, R. A. & P. S. Rosenbaum, New York, Ginu & Co. pp. 222-272.

Ross, J. R., (1970) 'Gapping and the Order of Constituents', *Progress in Linguistics*, (eds.) Bierwisch, M., & K. E. Heidolph, The Hague, Mouton, pp. 249-259.

Roy, S. (1920) *Kāraka-prakaraṇam*, Calcutta.

Sarup, L., (1920) *The Nighaṇṭu and the Nirukta*, (the oldest treatise on etymology, philology and semantics), Introduction only, Oxford, University Press, pp. 1-80.

Saxena, B. R. (1951) *Sanskrit-Vyākaraṇa-praveśikā*, Allahabad, Ramnarayanalal.

Seuren, P. A M. (1969) *Operators and Nucleus*, Cambridge University Press.

Singh, J. D., (1970) 'Pāṇini's Theory of Kārakas' (mimeographed).

Smith, Carlota S., (1969) 'Ambiguous Sentences with And', *Modern Studies in English : Readings in Transformational Grammar*, New Jersey, Prentice-Hall, Inc., pp. 75-79.

Speijer, J. S. (1886) *Sanskrit Syntax*, Leyden, E. J. Brill, also reprinted from 3rd edition 1968, Kyoto, (Japan). The Rinsen-Shoten Bookstore Ltd.

Staal, J. F., (1967) *Word-order in Sanskrit and Universal Grammar*, Dordrecht, D. Reidel publishing Co.

Stockwell, R. P., Schachter, P. and Partees, B. H. (1968) *Integration of Transformational Theories on English Syntax*, Vol. I, II, University of California.

Stratton, C. R. (1971) 'The Pathological Case', *Working Papers in Linguistics* No., 10, Ohio State University, pp. 221-230.

Subrahmanya Sastri, P. S. (1957) *Lectures on Patañjali's Mahābhāṣya*, Vol. V, Tiruchirapalli.

Subramania Iyer, K. A. (1969) *Bhartṛhari* (A study of the Vākyapadīya in the light of the Ancient Grammarians), Poona, Deccan College.

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